

**Krebs - Stammzell-, Bakterien- Persister-Therapie, CD47, Tetracyclin, Salinomycin, Seneca-Valley-Virus, MikroRNA, Amanitin, Gc-MAF etc.**

**Cancer Stem Cells, Bacteria Persister Therapy, CD47, Tetracyclines, Salinomycine, Seneca-valley-virus, MikroRNA, Amanitine, Gc-MAF a.o.**

“Die **Tumor- und Neoplasma- Medizin** wird im **21. Jahrhunderts** eine **Mitochondrien – Filamenten – Mizellen \* – Beziehungen \*** – Medizin sein” (Huismans BD 2014).

→ **Midichloria mitochondrii** -> <http://www.erlebnishaft.de/gentransfer.pdf>

"The **medicine of the 21st century** will be a medicine of **mitochondria, filaments, micelles \*** and **relationships \***" (Huismans BD 2014).

**Krebsstammzellen** oder **Tumorstammzellen** sind nach D Bonnet und J Dick das zentrale Element einer **1997** erstmals aufgestellten Theorie zur Entstehung von bösartigen Tumoren.

**Cancer stem cells** or **tumor stem cells** are by D Bonnet and J Dick the central element of a first time in **1997** established theory on the origin of malignant tumors

Quelle: <http://de.wikipedia.org/wiki/Krebsstammzelle>

**Alfred Knudson's "Two-Hit" Theory of Cancer Causation.** [https://youtu.be/h\\_sfOYFJTfU](https://youtu.be/h_sfOYFJTfU)

**Bakterien Persister bzw. bakterielle L-Formen** sind **Bakterienvarianten** bei denen der Stoffwechsel extrem langsam läuft und die deswegen weitaus antibiotikaresistent sind.

**Persister bacteria or bacteria L-Forms** are **bacteria variants** that run their metabolism in a very clear savings flame and therefore are immune to virtually all antimicrobial agents.

Schwabe RF, Jobin C (2013) **The microbiome and cancer.** Nat Rev Cancer.13, 800–12.  
<https://www.ncbi.nlm.nih.gov/pubmed/24132111>

- **Bakterielle L-Formen** <http://www.erlebnishaft.de/stressvar1.pdf>
- **Bakterien Persister** <http://www.xerlebnishaft.de/trotzantibiosepat.pdf>
- **Horizontaler Gentransfer** <http://www.erlebnishaft.de/gentransfer.pdf>
- **Biofilme und Quorum sensing** <http://www.erlebnishaft.de/kommentbiofilmmed.pdf>
- <http://www.erlebnishaft.de/biofilmmed.pdf> <http://www.xerlebnishaft.de/quorum.pdf>
- **Bakterielle Resistenzmechanismen, Bacterial resistance mechanisms**  
<http://www.xerlebnishaft.de/escape.pdf> [http://www.xerlebnishaft.de/escape\\_eng.pdf](http://www.xerlebnishaft.de/escape_eng.pdf)
- **Selbst-Muster-Nano** [http://www.erlebnishaft.de/selbst\\_muster\\_nano.pdf](http://www.erlebnishaft.de/selbst_muster_nano.pdf)
- **Virulenz-Inhibitoren** [http://www.kabilahsystems.de/virulenz\\_inhibitoren.pdf](http://www.kabilahsystems.de/virulenz_inhibitoren.pdf)
  
- Prato D (2018) **How Lyme Disease and Chronic Infections Can Lead to Cancer.**  
<https://www.envita.com/lyme-disease/lyme-disease-and-chronic-infections-can-lead-to-cancer>

**Biofilm und Quorum sensing Therapeutika, Therapeutics:**

Makrolide: Azithromycin, Clarithromycin; Lactoferrin, Ajoene aus Knoblauch, Polyphenole, Grape fruit, Lumbrokinase, Nattokinase, Antikoagulation, pH (H2), Samento, Banderol, N-Acetylcystein, Phenothiazine, Acyldepsipeptid (ADEP)

[http://www.nature.com/nature/journal/v503/n7476/fig\\_tab/nature12834\\_F1.html](http://www.nature.com/nature/journal/v503/n7476/fig_tab/nature12834_F1.html)

Elektromagnetismus und Ultraschall <http://www.xerlebnishaft.de/quorum.pdf>

**Neoplasma and cancer diseases** are caused by **mitochondrial** dysfunction (Warburg O. 1958) by the **microbiome** and mutations effects eg. in the nucleolinus DNA (**Cytoskeleton, Methyl-Cycle**) and in the environment of the modifying micro-RNAs, **polypeptides** and **fatty acids**. In the consequence of this with you will find cell wall modifications and a functional change of the

whole system ([Quorum sensing](#)) ([Huismans BD](#), 2014).

**Neoplasmen und Krebserkrankungen** sind durch mitochondriale Dysfunktion (Warburg 0. 1958) durch das [Mikrobiom](#) und durch DNA-mutations Effekte z.B. im Nucleolus des Zellkernes ([Zytoskelett](#), [Methyl-Zyklus](#)) und durch modifizierte Mikro-RNAs sowie durch variante [Polypeptide](#) und [Fettsäuren](#) verursacht. Die Folge davon sind Zell-Wand Funktions- und Gesamt-Systemänderungen ([Quorum sensing](#)) ([Huismans BD](#), 2014).

**Cave:**

Nelson C, Elmendorf S, Mead P (2014) **Neoplasms Misdiagnosed as “Chronic Lyme Disease”** JAMA Intern Med. doi:10.1001/jamainternmed.2014.5426

<http://archinte.jamanetwork.com/article.aspx?articleid=1921752>

**Aber, however :**

[Jacqueline C](#), [Tasiemski A](#), [Sorci G](#) et al. (2017) **Infections and cancer: the "fifty shades of immunity" hypothesis.** [BMC Cancer](#). 17(1), 257. doi: 10.1186/s12885-017-3234-4.

<https://www.ncbi.nlm.nih.gov/pubmed/28403812>

« **Infectious organisms, that are not oncogenic neither oncolytic, may play a significant role in carcinogenesis, suggesting the need to increase our knowledge about immune interactions between infections and cancer.** »

[Kallick CA](#), [Friedman DA](#), [Nyindo MB](#) (2015) **Could ehrlichial infection cause some of the changes associated with leukemia, myelodysplastic diseases and autoimmune disorders, and offer antibiotic treatment options?** [Med Hypotheses](#). 85(6), 891-3. doi: 10.1016/j.mehy.2015.09.015. Epub 2015 Sep 16. <https://www.ncbi.nlm.nih.gov/pubmed/26394545>

[Hofmann H](#) (2017) **A foot tumour as late cutaneous Lyme borreliosis: a new entity or a variant of an inflammatory proliferative reaction to Borrelia burgdorferi?** [Br J Dermatol](#). 177(4), 906-907. doi: 10.1111/bjd.15844. <https://www.ncbi.nlm.nih.gov/pubmed/29052881>

**Ulfig N (2014) Kurzlehrbuch der Histologie**

**International Cancer Genome Consortium [ICGC](#)**

Epstein RJ (2015) **A periodic table for cancer.** [Future Oncology](#). 11(5), 785-800 , DOI 10.2217/fon.14.315 (doi:10.2217/fon.14.315) <http://www.futuremedicine.com/doi/full/10.2217/fon.14.315>

„**Here, it is proposed that treatment strategies could be fine-tuned upfront simply by quantifying tumorigenic spatial (cell growth) and temporal (genetic stability) control losses, as predicted by genetic defects of cell-cycle-regulatory gatekeeper and genome-stabilizing caretaker tumor suppressor genes, respectively. These differential quantifications of tumor dysfunction may in turn be used to create a tumor-specific ‘periodic table’ that guides rational formulation of survival-enhancing anticancer treatment strategies.** »

**FDA Approved Drugs for Oncology** (2015) <https://www.centerwatch.com/drug-information/fda-approved-drugs/therapeutic-area/12/oncology><https://www.centerwatch.com/drug-information/fda-approved-drugs/therapeutic-area/12/oncology>

**Der interdisziplinäre Beginn der Onkologie in Deutschland war 1903 in Berlin, Charité:**  
Stahl, Strahl, Vergiftung.

Voswinckel P (2015) **Erinnerungsort Krebsbaracke.** Klarstellungen um das erste interdisziplinäre Krebsforschungsinstitut in Deutschland (Berlin, Charité)

**The interdisciplinary beginning in Germany (1903):** Scalpel, radiation, poisoning.

Cancer barracks. Clarifications to the first interdisciplinary cancer research institute in Germany (Berlin, Charité)

<https://www.dgho.de/gesellschaft/geschichte/dgho-buecher/erinnerungsort-krebsbaracke>

<https://www.amazon.de/Erinnerungsort-Krebsbaracke-Klarstellungen-interdisziplin%C3%A4re-Krebsforschungsinstitut/dp/3981635426>

**Diese Standards von 1903 bis 1933 gelten heute noch fast unverändert.  
Standards that have been developed 1903-1933 are valid today almost unchanged.**

Schultze S (2017) **Krebstherapie, Immunsystem und Mikrobiom – das künftige Triumvirat**  
Deutsches Ärzteblatt 114(45), C1726-C1729

<https://www.aerzteblatt.de/archiv/194466/Onkologie-Krebstherapie-Immunsystem-und-Mikrobiom-das-kuenftige-Triumvirat>

<https://www.aerzteblatt.de/archiv/194466/Onkologie-Krebstherapie-Immunsystem-und-Mikrobiom-das-kuenftige-Triumvirat#literatur>

[Prigerson HG et al. \(2015\) JAMA Oncology](#) [Blanke CD, Fromme EK \(2015\) JAMA Oncology](#)

Hübner J (2015) **Komplementäres und Alternatives: Ohne Vorurteile prüfen.** Deutsches  
Ärzteblatt 112(14), C518-C521 <http://www.aerzteblatt.de/pdf/112/14/a622.pdf>

<http://www.aerzteblatt.de/archiv/169038/Onkologie-Komplementaeres-und-Alternatives-Ohne-Vorurteile-pruefen>

**„Nur eine vollständige Transparenz schafft die Basis für eine unabhängige Beurteilung und Bewertung.  
Einen Sonderweg soll und darf es für alternative Methoden und Komplementärmedizin nicht geben“**

**"Only complete transparency creates the basis for an independent assessment and review. A special path  
should not and must not give on alternative methods and Complementary Medicine "**

Mellman I, Coukos G, Dranoff G (2011) **Cancer immunotherapy comes of age.** Nature  
480, 480-489. <http://www.nature.com/nature/journal/v480/n7378/full/nature10673.html>

Weber JS (2015) **Immunotherapy: 5 Ways to Stop Cancer**

<https://www.youtube.com/user/CancerResearchInst?v=3hIGq-3F1uQ>

## Warburg Hypothese, Warburg hypothesis

**Wasserstoff, H<sub>2</sub>, Vacuolar-type H<sup>+</sup> - ATPase (V-ATPase), Katalase, Wasserstoffperoxyd,  
Katalasemangel in den Tumorzellen,  
deficiency of catalase in cancer cells**

➔ **PH-Wert** <http://www.kabilahsystems.de/ph.pdf>

Warburg O et al.(1958) **Partielle Anaerobiose der Krebszellen** und Wirkung der Röntgenstrahlen auf  
Krebszellen. Max-Planck-Institut für Zellphysiologie, Berlin-Dahlem. In: Jahrbuch 1958 der Max-  
Planck-Gesellschaft zur Förderung der Wissenschaft e.V., Göttingen. pp 159-211

<http://link.springer.com/article/10.1007%2FBF00599078>

[https://www.researchgate.net/researcher/1958105\\_O\\_WARBURG/publications/3](https://www.researchgate.net/researcher/1958105_O_WARBURG/publications/3)

**„Zum Krebsstoffwechsel gehört nicht nur die große Gärung, sondern auch die zu kleine Atmung. ... Der  
Abfall der Atmung erfolgt ... nicht vor dem Anstieg der Gärung, sondern nachher. ... Die Reihenfolge der  
Ereignisse bei der Entstehung des Krebsstoffwechsels ist also: Zuerst ungeordnetes Wachstum und,  
damit verbunden, Entkoppelung der Atmung und Anstieg der Gärung, darauf folgend, und zwar  
beschleunigt durch Sauerstoffmangel, Abfall der Atmung.“**

Folmer O, Black M, Hoeh W, Lutz R, Vrijenhoek R (1994) **DNA primers for amplification of  
mitochondrial cytochrome c oxidase subunit I from diverse metazoan invertebrates.** Mol. Mar.  
Biol. Biotechnol. 3, 294–299. <http://www.ncbi.nlm.nih.gov/pubmed/7881515>

Saikali ZI, Singh G (2003) **Doxycycline and other Tetracyclines in the treatment of bone  
metastasis.** Anticancer Drugs. 14(10), 773-8 <http://www.ncbi.nlm.nih.gov/pubmed/14597870>  
[https://www.researchgate.net/publication/9026092\\_Doxycycline\\_and\\_other\\_tetracyclines\\_in\\_the\\_treatment\\_of\\_bone\\_metastasis](https://www.researchgate.net/publication/9026092_Doxycycline_and_other_tetracyclines_in_the_treatment_of_bone_metastasis)

Navaglia F, Basso D, Fogar P, Sperti C, Greco E, Zambon C F et al. (2006) **Mitochondrial DNA D-loop in pancreatic cancer: somatic mutations are epiphenomena while the germline 16519 T variant worsens metabolism and outcome.** Am J Clin Pathol 126, 593-601.  
<http://www.ncbi.nlm.nih.gov/pubmed/16938655> <http://ajcp.ascpjournals.org/content/126/4/593.long>

Büttner S, Carmona-Gutierrez D, Eisenberg T et al. (2009) **The Warburg effect suppresses oxidative stress induced apoptosis in a yeast model for cancer.** *PLoS One*. 4, 2.  
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004592>

Chatterjee A, Dasgupta S, Sidransky D (2011) **Mitochondrial Subversion in Cancer.** *Cancer Prev Res (Phila)*. 4(5), 638–654. doi: 10.1158/1940-6207.CAPR-10-0326 PMID: PMC3298745 NIHMSID: NIHMS358940 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3298745/>  
« This review offers some insight into the extent of mtDNA mutations, their functional consequences in tumorigenesis, mitochondrial therapeutics, and future clinical application. »

Loureiro R, Mesquita KA, Oliviera PJ et al. (2013) **Mitochondria in Cancer Stem Cells : A Target for Therapy.** RecentPatents on Endocrine, Metabolic and Immune Drug Discovery 7(2)  
[http://cnc.cj.uc.pt/~pauloliv/FCT%20Reports/P19project/P19\\_2012.pdf](http://cnc.cj.uc.pt/~pauloliv/FCT%20Reports/P19project/P19_2012.pdf)

Lamb R, Harrison H, Hulit J (2014) **Mitochondria as new therapeutic targets for eradicating cancer stem cells: Quantitative proteomics and functional validation via MCT1/2 inhibition.** *Oncotarget*. 5(22), 11029-37. <http://www.ncbi.nlm.nih.gov/pubmed/25415228>

Seyfried TN (2015) **Cancer as a mitochondrial metabolic disease.** *Front Cell Dev Biol*. 3, 43. doi: 10.3389/fcell.2015.00043. eCollection. <https://www.ncbi.nlm.nih.gov/pubmed/26217661>

Metzger MJ, Reinisch C, Sherry J, Goff SP (2015) **Horizontal transmission of clonal cancer cells causes leukemia in soft-shell clams.** *Cell* doi:10.1016/j.cell.2015.02.042.  
<http://www.cell.com/cell/pdf/S0092-8674%2815%2900243-3.pdf>  
« We therefore analyzed mitochondrial DNA (mtDNA) sequences and polymorphic microsatellite repeat loci and found that the genotypes of the neoplastic cells do not match those of their hosts. Our findings suggest that horizontal transmission of `cancer cells` is more widespread in nature than previously supposed“.

Lamb R, Ozsvari B, Lisanti CL et al. (2015) **Antibiotics that target mitochondria effectively eradicate cancer stem cells, across multiple tumor types: Treating cancer like an infectious disease.** *Oncotarget*, p.1-16 <http://www.ncbi.nlm.nih.gov/pubmed/25625193>

Pfanner N (2015) **Publications of Pfanner Lab.**  
<http://www.biochemie.uni-freiburg.de/ag/pfanner/publications>

(2015) **Otto-Warburg-Medaille 2015 geht an Prof. Nikolaus Pfanner.**  
<https://idw-online.de/de/news634438>

➔ **Mitochondrien** <http://www.xerlebnishaft.de/mitochondrien.pdf>

## **Aneuploidie – Hypothese, Genommutation – Hypothese und Krebs. Aneuploidy (Genom mutation) and Cancer, Toxine, toxins, mikrochimerismus, mikrochimerism**

Boveri T (1914) *Zur Frage der Entstehung maligner Tumoren.* Gustav Fischer Verlag, Jena 1914.

Crump KS, Hoel DG, Langley CH, Peto R (1976) **Fundamental Carcinogenic Processes and Their Implications for Low Dose Risk Assessment.** *Cancer Research* 36, 2973-2979  
[http://cancerres.aacrjournals.org/content/36/9\\_Part\\_1/2973.full.pdf](http://cancerres.aacrjournals.org/content/36/9_Part_1/2973.full.pdf)

Popp FA (1976) **Biophotonen.** Verlag Dr. Ewald Fischer, Heidelberg. ISBN 3-921003-38-5

Popp FA (1984/85) **Molekulare und biophysikalische Aspekte der Malignität.** Verlag Grundlagen und Praxis, Leer. ISBN 3-921 229-17-0

Duesberg PH (1985) **Activated proto-oncogenes: sufficient or necessary for cancer?** In: [Science](#). 157, 24–28.

Duesberg P, Rasnick D (2000) **Aneuploidy, the somatic mutation that makes cancer a species of its own.** [Cell Motility and the Cytoskeleton](#) 47, 81-107 [PDF](#)

Fabarius, A, Hehlmann R, DuesbergP (2003) Instability of chromosome structure increases exponentially with degrees of aneuploidy. In: [Cancer Genet Cytogenet](#). 143, 59–72.

Duesberg P, Fabarius A, Hehlmann R (2004) Aneuploidy, the primary cause of the multilateral genomic instability of neoplastic and preneoplastic cells. [IUBMB Life](#) 56, 65-81. (2004) [PDF](#)  
Duesberg P (2007) Chromosomal chaos and cancer, [Sci Am](#) 296, 52-59. [PDF](#)

Duesberg P, Li R et al. (2005) **The chromosomal basis of cancer.** In: [Cell Oncol](#). 27 (5-6), 293–318.

[Chen](#) WL, [Luan](#) YC, <sup>b</sup> [Shieh](#) MC et al. (2007) **Effects of Cobalt-60 Exposure on Health of Taiwan Residents Suggest New Approach Needed in Radiation Protection.** [Dose Response](#). 5(1), 63–75. Published online 2006 Aug 25. doi: [10.2203/dose-response.06-105.Chen](#)  
PMCID: PMC2477708 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2477708/>  
**“Medical treatments with long-term low dose rate ionizing radiation or with acute low dose exposures could be employed to prevent and control serious illnesses with no symptomatic side effects.<sup>[25]</sup> For example, the evidence suggests that an annual supplement of whole-body radiation—50 mSv in several fractionated exposures—to elderly volunteers would stimulate their defences and provide protection against the scourge of cancer.”**

Gadi VK, Nelson JL (2007) **Fetal microchimerism in women with breast cancer.** [Cancer Res](#), 67, 9035-38.

Gadi VK et al. (2008) **Case-control study of fetal microchimerism and breast cancer.** [PLOS ONE](#), 3, e1706.

Nelson JL (2009) **Naturally acquired microchimerism: For better or for worse.** [Arthritis Rheum](#), 60, 5-7.

Giehl M, Leitner A, Haferlach C, Duesberg P, Hofmann WK, Hofheinz R, Seifarth W, Hochhaus A, Fabarius A. (2010) **Detection of centrosome aberrations in disease-unrelated cells from patients with tumor treated with tyrosine kinase inhibitors.** [Eur J Haematol](#). 85(2), 139-48. Epub 2010 Apr 16. [Link http://www.ncbi.nlm.nih.gov/pubmed/20408871](http://www.ncbi.nlm.nih.gov/pubmed/20408871)  
**«Our data have shown that TKI [Tyrosine kinase inhibitors] treatment of tumor patients may influence centrosomes in disease-unrelated cells or tissues. «**

Gammill HS, Nelson JL (2010) **Naturally acquired microchimerism.** [Int J Dev Biol](#), 54, 531-43.

Cirello V et al. (2010) **Fetal cell microchimerism in papillary thyroid cancer: studies in peripheral blood and tissues** [Int J Cancer](#), 126, 2874-78.

Sanders R (2011) **Are cancers newly evolved species?** UC Berkeley NewsCenter [Link](#)

Duesberg P. (2011) **Sind Tumoren eine neue Spezies?** [Deutsches Ärzteblatt](#) 108(48) <https://www.aerzteblatt.de/pdf/108/48/a2604.pdf>

Kamper-Jørgensen M et al. (2012) **Opposite effects of microchimerism on breast and colon cancer.** [Eur J Cancer](#), 48, 2227-35.

Chen X-P, Dong Y-J, Guo W-P et al. (2015) **Detection of Wolbachia genes in a patient with Non-Hodkin's Lymphoma.** [CMI Clin Microbiol Infect](#). 21(2), 182.e1-4. doi: 10.1016/j.cmi.2014.09.008. Epub 2014 Oct 29.

**„This is the first report of detection of Wolbachia genes from the blood of human patients with non-Hodgkin's lymphoma.“**

Bruce D (2016) **Neoplastic malignant transformations in cestodes are highly pathogenic to hosts.**

[https://www.researchgate.net/publication/305495737\\_PowerPoint\\_Presentation\\_Neoplastic\\_Malignant\\_Transformations\\_in\\_Cestodes\\_are\\_Highly\\_Pathogenic\\_to\\_Hosts](https://www.researchgate.net/publication/305495737_PowerPoint_Presentation_Neoplastic_Malignant_Transformations_in_Cestodes_are_Highly_Pathogenic_to_Hosts)

- ➔ **Bakterien Stressvarianten, L-Formen, filterable forms (50-200 Nanometer), cell wall defective forms** <http://www.erlebnishaft.de/stressvar1.pdf>
- ➔ **Zytoskelett, Zentromer-kinetosom, Nucleolinus** <http://www.xerlebnishaft.de/zytoskelett.pdf>
- ➔ **RNA-Welt** <http://www.xerlebnishaft.de/rna.pdf>
- ➔ **Immunitaet** [http://www.erlebnishaft.de/danger\\_model.pdf](http://www.erlebnishaft.de/danger_model.pdf)
- ➔ **Pathogenitätsfaktoren** [http://www.xerlebnishaft.de/bakt\\_pathogenitaetsfaktoren.pdf](http://www.xerlebnishaft.de/bakt_pathogenitaetsfaktoren.pdf)
- ➔ **Immunsuppressive Virusarten** <http://www.erlebnishaft.de/immunsuppressivvirus.pdf>
- ➔ **Virus triggers** <http://www.erlebnishaft.de/virus triggers.pdf>
- ➔ **Virus, Bakterium und Immunsystem** <http://www.erlebnishaft.de/virusbaktimmun.pdf>
- ➔ **Horizontaler Gentransfer** <http://www.erlebnishaft.de/gentransfer.pdf>
- ➔ **Gendynamik** [http://www.xerlebnishaft.de/gen\\_dynamik.pdf](http://www.xerlebnishaft.de/gen_dynamik.pdf)
- ➔ **Symbiogenese** <http://www.erlebnishaft.de/symbiogenese.pdf>
- ➔ **Selbstorganisation** [http://www.erlebnishaft.de/selbst\\_muster\\_nano.pdf](http://www.erlebnishaft.de/selbst_muster_nano.pdf)

### Mizellen, micelles

- ➔ **Fettsäuren** <http://www.kabilahsystems.de/ungesaettfetts.pdf>
- ➔ **Amine und Peptide** <http://www.kabilahsystems.de/biogeneamineundpeptide.pdf>
- ➔ **Toll like Rezeptoren** [http://www.erlebnishaft.de/TLR2\\_1\\_3\\_7\\_13.pdf](http://www.erlebnishaft.de/TLR2_1_3_7_13.pdf)

### Die Krebs – Stammzell – Hypothese, the cancer stem cell hypothesis

Bonnet D, Dick JE (1997) Human acute myeloid leukemia is organized as a hierarchy that originates from a primitive hematopoietic cell. *Nature medicine*. 3(7), 730–737, [ISSN 1078-8956](https://doi.org/10.1038/1078-8956). [PMID 9212098](https://pubmed.ncbi.nlm.nih.gov/9212098/)

Rom J, Schneeweis a, Zieglschmid V et al. (2005) **Multiplex PCR zum Nachweis disseminierter Tumorzellen (DTC) im Blut von Patientinnen mit Mammacarcinom.** Abstract 177 MGG Tagung Frankfurt. <https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-2005-870717>  
**„Die DTC-Diagnostik eröffnet neue Möglichkeiten zur zeitnahen Beurteilung der Therapieeffizienz im Rahmen der neoadjuvanten Therapie, der adjuvanten Therapie und zur Verlaufskontrolle.“**

**Onkologisches Labor der Frauenklinik. Univ. Klinikum Heidelberg.** Jahrbuch 2006  
[http://www.klinikum.uni-heidelberg.de/fileadmin/frauenklinik/Forschung/Jahrbuch\\_06\\_Kaul\\_Fersis.pdf](http://www.klinikum.uni-heidelberg.de/fileadmin/frauenklinik/Forschung/Jahrbuch_06_Kaul_Fersis.pdf)

Zhou J, Zhang Y (2008) **Cancer stem cells:** models, mechanisms and implications for improved treatment. *Cell Cycle*. 7, 1360-1370 <http://www.ncbi.nlm.nih.gov/pubmed/18418062>

Gupta PB, Onder TT et al. (2009) **Identification of selective inhibitors of cancer stem cells by high-throughput screening.** In: *Cell*. 138(4), 645–659, [ISSN 1097-4172](https://doi.org/10.1016/j.cell.2009.06.034). [doi:10.1016/j.cell.2009.06.034](https://doi.org/10.1016/j.cell.2009.06.034). [PMID 19682730](https://pubmed.ncbi.nlm.nih.gov/19682730/)

[Gonzales JC, Fink LM, Goodman OB et al. \(2011\)](https://doi.org/10.1016/j.cell.2009.06.034) Comparison of Circulating MicroRNA 141 to Circulating Tumor Cells, Lactate Dehydrogenase, and Prostate-Specific Antigen for Determining Treatment Response in Patients With Metastatic Prostate Cancer. *Clin Genitourin Cancer* 9, 39–45 <http://www.clinical-genitourinary-cancer.com/article/S1558-7673%2811%2900016-4/abstract>

Weinberg R (2011) **Cancer Stem Cells: A New Target in the Fight against Cancer.**  
<https://www.youtube.com/watch?v=tqrrHLkPNRc>

Gemma K, Alderton GK (2011) **Genomics: One cell at a time.** *Nature Reviews Cancer* 11, 312 [doi:10.1038/nrc3060](https://doi.org/10.1038/nrc3060) <http://www.nature.com/nrc/journal/v11/n5/full/nrc3060.html>

[Arnout G. Schepers](#) AG, [Hugo J. Snippert](#) HJ, [Daniel E. Stange](#) DE et al. (2012) Lineage Tracing Reveals Lgr5<sup>+</sup> Stem Cell Activity in Mouse Intestinal Adenomas. Science 337(6095), 730-735 DOI: 10.1126/science.1224676 <http://www.sciencemag.org/content/337/6095/730.abstract>

Kongress der Deutschen Gesellschaft für Psychiatrie, Psychotherapie und Nervenheilkunde (DGPPN) 21.-24. November 2012, Berlin. zur Hausen H: **Infektionen als Krebsursache**. PL-002, 21.11.2012 <http://www.medscapemedizin.de/artikel/4900580>

[Lu Han](#) L, [Sanjun Shi](#) S, [Tao Gong](#) T et al (2013) **Cancer stem cells: therapeutic implications and perspectives in cancer therapy**. Acta Pharmaceutica Sinica B. **3(2)**, 65-75  
DOI: 10.1016/j.apsb.2013.02.006  
<http://www.sciencedirect.com/science/article/pii/S2211383513000208>

Schneeweiss A (2013) **Die Bedeutung zirkulierender Tumorzellen im Blut bei Patientinnen mit Brustkrebs: Verändert der CTC-Test Prognosen und Therapien?** Kongress-Pressekonferenz der Deutschen Gesellschaft für Senologie (DGS) anlässlich ihrer 33. Jahrestagung, 27. Juni 2013, 10.30 bis 11.30 Uhr, Internationales Congress Center München  
[http://www.senologie.org/fileadmin/media/documents/Presse/Schneeweiss\\_Zirkulierende\\_Tumorzellen\\_im\\_Blut\\_Presstext\\_FIN.pdf](http://www.senologie.org/fileadmin/media/documents/Presse/Schneeweiss_Zirkulierende_Tumorzellen_im_Blut_Presstext_FIN.pdf)  
**„Zusammenfassend sprechen die Studien und Forschungsergebnisse für eine hohe klinische und wissenschaftliche Relevanz des Nachweises von CTC im Blut von Patientinnen mit Brustkrebs. Aufgrund der bisherigen Daten könnte die CTC-Messung mit dem CellSearch™ Systems schon jetzt zur Unterstützung der klinischen Entscheidungsfindung in bestimmten Einzelfällen in der metastasierten Situation sinnvoll sein“.**  
[http://www.adnagen.com/hosting\\_i24/daten/Objekte/Download\\_Dateien/Zusammenfassung.pdf](http://www.adnagen.com/hosting_i24/daten/Objekte/Download_Dateien/Zusammenfassung.pdf)

Stafford P, Cichacz Z, Woodbury NW et al. (2014) **Immunosignature system for diagnosis of cancer**. PNAS, doi:10.1073/pnas.1409432111, 2014.  
<http://www.pnas.org/content/suppl/2014/07/11/1409432111.DCSupplemental/pnas.201409432SI.pdf>

Fox EJ, Loeb LA(2014) **One cell at a time**. Nature 512, 143–4.  
<http://www.nature.com/nature/journal/v512/n7513/full/nature13650.html>

Schultze S. (2014) **Auf der Suche nach der Achillesferse der Tumoren**. Onkologische Forschung. Deutsches Ärzteblatt 111(37), A1512-A1516  
<http://www.aerzteblatt.de/archiv/161589/Onkologische-Forschung-Auf-der-Suche-nach-der-Achillesferse-der-Tumoren>  
<http://www.aerzteblatt.de/pdf/111/37/a1512.pdf>

Pressekonferenz zum 8. Internationalen Heinrich F.C. **Behr-Symposium „Stammzellen und Krebs“**, 28. bis 30. September 2014, DKFZ, Heidelberg: <http://www.dkfz.de/de/presse/pressemitteilungen/2014/dkfz-pm-14-44-Krebsstammzellen-Der-weite-Weg-zur-gezielten-Therapie.php>  
<http://www.dkfz.de/de/presse/pressemitteilungen/2014/dkfz-pm-14-43-Krebsstammzellen-im-Tumor-bestimmen-die-Lebenserwartung-bei-Brustkrebs.php>

**Institut für Pathologie Universitätsklinikum Heidelberg** (2014)  
[https://www.klinikum.uni-heidelberg.de/pressemitteilungen.136514.0.html?ifab\\_modus=detail&ifab\\_id=5064](https://www.klinikum.uni-heidelberg.de/pressemitteilungen.136514.0.html?ifab_modus=detail&ifab_id=5064)  
Telefon: 0800 - 420 30 40, täglich kostenlos von 8 bis 20 Uhr  
E-Mail: [krebsinformationsdienst@dkfz.de](mailto:krebsinformationsdienst@dkfz.de); [www.krebsinformationsdienst.de](http://www.krebsinformationsdienst.de)

Goldkorn A, Ely B, Quinn DI et al. (2014) Circulating Tumor Cell Counts Are Prognostic of Overall Survival in SWOG S0421: A Phase III Trial of Docetaxel With or Without Atrasentan for Metastatic Castration-Resistant Prostate Cancer. J Clin Oncol 32, 1136-1142  
<http://jco.ascopubs.org/content/32/11/1136>

[Tomasetti](#) C, [Vogelstein](#) B (2015) **Variation in cancer risk among tissues can be explained by the number of stem cell divisions**. Science 347(6217), 78-81 DOI: 10.1126/science.1260825  
<http://www.sciencemag.org/content/347/6217/78>

Jones S et al. (2015) **Personalized genomic analyses for cancer mutation discovery and interpretation**. Science Translational Medicine, 7(283), 283ra53.  
<http://stm.sciencemag.org/content/7/283/283ra53>

« **These data suggest that matched tumor-normal sequencing analyses are essential for precise identification and interpretation of somatic and germline alterations and have important implications for the diagnostic and therapeutic management of cancer patients.** »

Ledford H (2015) **Cancer-fighting viruses win approval.** US regulators clear a viral melanoma therapy, paving the way for a promising field with a chequered past. Nature  
<http://www.nature.com/news/cancer-fighting-viruses-win-approval-1.18651>  
[http://www.nature.com/polopoly\\_fs/1.18651!/menu/main/topColumns/topLeftColumn/pdf/526622a.pdf](http://www.nature.com/polopoly_fs/1.18651!/menu/main/topColumns/topLeftColumn/pdf/526622a.pdf)

## Zuckerbindende Proteine, Lectine

**Lectine** „[sind] ... zuckerbindende Proteine ohne enzymatische Aktivität. ... Bei Säugern dienen sie der Zell-Zell-Erkennung. Außerdem wirken sie mitogen und stimulieren die interzelluläre Kommunikation durch Freisetzung von Botenstoffen“. -> [Lectin-Histochemie](#).  
Quelle: Lexikon der Neurowissenschaft, Lektine. <http://www.spektrum.de/lexikon/neurowissenschaft/lectine/6961>

Just Like club, Lectin (2014) <http://just-like.club/page/news/lektin>

Bibliothek Uni-Halle (2014) Neoglykoproteine und ihre Bedeutung als Marker endogener, zuckerbindender Proteine (Lektine). <http://sundoc.bibliothek.uni-halle.de/diss-online/03/04H035/t4.pdf>

➔ **Komplement** <http://www.xerlebnishaft.de/complement.pdf>

## Immunreaktion, immune response

Burnet M (1957) **Cancer; a biological approach. I. The processes of control.** In: Br Med J. (1957); Band 1(5022), 779–786. [PMID 13404306](#); [PMC 1973174](#)  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1973174/>

Blaeser-Kiel G (2007) **Sirolimus zum Transplantatschutz. Bessere Langzeitprognose durch geringere Tumorinzidenz.** *Deutsches Ärzteblatt*. 104, A-1255. [Artikel](#)

Rice J (2009) **First Drug Shown to Extend Life Span in Mammals.** In: Massachusetts Institute of Technology (Hrsg.): Technology Review. 1–2. [Sirolimus, Rapamycin, **Rapamune®**]

Harrison DE, Strong R, Sharp ZD et al. (2009) **Rapamycin fed late in life extends lifespan in genetically heterogeneous mice.** In: *Nature*. doi:10.1038/nature08221

Martelli AM et al. (2010) **The emerging role of the phosphatidylinositol 3-kinase/ akt/mammalian target of rapamycin signaling network in cancer stem cell biology.** *Cancers (Basel)*

Whiteside TL (2010) **Immune responses to malignancies.** *J Allergy Clin Immunol* 125, 272-83  
<http://www.jacionline.org/article/S0091-6749%2809%2901464-X/pdf>

Dufour M, Dormond-Neuwly A, Demartines N, Dormond O (2011) **Tarrgeting the Mammalian Target of Rrapamycin (mTOR) in Cancer Therapy : Lessons from Past and Future Perspectives.** *Cancers*. 3, 2479-2500 <http://www.mdpi.com/2072-6694/3/2/2478>  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3757428/>

Pópulo H et al. (2012) **The mTOR Signalling Pathway in Human Cancer.** *Int J Mol Sci*

Alqurashi N et al. (2013) **Chemical Inhibitors and microRNAs (miRNA) Targeting the Mammalian Target of Rapamycin (mTOR) Pathway: Potential for Novel Anticancer Therapeutics.** *Int J Mol Sci*

Soliman GA (2013) **The role of mechanistic target of rapamycin (mTOR) complexes signaling in the immune responses.** *Nutrients*



Verschraegen CF et al. (2013) [A phase I study of the combination of temsirolimus with irinotecan for metastatic sarcoma](#). Cancers (Basel)

Matsuoka T et al. (2014) [The Role of PI3K/Akt/mTOR Signaling in Gastric Carcinoma](#). Cancers (Basel)

**CD47** <http://en.wikipedia.org/wiki/CD47>

**CD47 (Cluster of Differentiation 47) auch als Integrin-assoziiertes Protein (IAP) bekannt. CD47 ist ein Transmembran-Protein, das beim Menschen durch das CD47-Gen kodiert wird. CD47 gehört zur Superfamilie der Immunglobuline.**

**CD47 ist in einer Reihe von zellulären Prozessen, einschließlich der Apoptose, Proliferation, Adhäsion und Migration beteiligt. Darüber hinaus spielt es eine wichtige Rolle bei der Immun- Antwort und bei der Angiogenese.**

**CD47 wird ubiquitär in menschlichen Zellen exprimiert.**

**CD47 wird in vielen Tumorzellen überexprimiert.**

**CD47 (Cluster of Differentiation 47) also known as integrin associated protein (IAP).**

**CD47 is a transmembrane protein that in humans is encoded by the CD47 gene.**

**CD47 belongs to the immunoglobulin superfamily.**

**CD47 is involved in a range of cellular processes, including apoptosis, proliferation, adhesion, migration. Furthermore, it plays a key role in immune and angiogenic responses.**

**CD47 is ubiquitously expressed in human cells.**

**CD47 has found to be overexpressed in many different tumor cells.**

**Quelle, Source: <http://en.wikipedia.org/wiki/CD47>**

Chao MP, Weissman IL, Majeti R (2012). [The CD47-SIRPα pathway in cancer immune evasion and potential therapeutic implications](#). Curr. Opin. Immunol. 24 (2), 225–32. doi:10.1016/j.coi.2012.01.010. PMC 3319521. PMID 22310103

Sick E, Jeanne A, Schneider C, Dedieu S, Takeda K, Martiny L (2012). CD47 update: a multifaceted actor in the tumor microenvironment of potential therapeutic interest. Br. J. Pharmacol. 167 (7), 1415–30. doi:10.1111/j.1476-5381.2012.02099.x. PMID 22774848.

Willingham SB, Volkmer J-B, Gentles AJ et al. (2012) The CD47-signal regulatory protein alpha (SIRPα) interaction is a therapeutic target for human solid tumors. PNAS Early Edition, 1-6 <http://www.pnas.org/content/early/2012/03/20/1121623109.full.pdf>

Tseng D, Volkmer JP, Willingham SB, Contreras-Trujillo H, Fathman JW, Fernhoff NB, Seita J, Inlay MA, Weiskopf K, Miyanishi M, Weissman IL (2013). [Anti-CD47 antibody-mediated phagocytosis of cancer by macrophages primes an effective antitumor T-cell response](#). Proc. Natl. Acad. Sci. U.S.A. 110 (27), 11103–8. doi:10.1073/pnas.1305569110. PMC 3703977. PMID 23690610.

Unanue ER (2013). [Perspectives on anti-CD47 antibody treatment for experimental cancer](#). Proc. Natl. Acad. Sci. U.S.A. 110 (27), 10886–7. doi:10.1073/pnas.1308463110. PMC 3704033. PMID 23784781.

[Baccelli I](#), [Schneeweiss A](#), [Riethdorf S](#) et al. (2013) **Identification of a population of blood circulating tumor cells from breast cancer patients that initiates metastasis in a xenograft assay**. Nature Biotechnology 31, 539–544 doi:10.1038/nbt.2576 <http://www.nature.com/nbt/journal/v31/n6/full/nbt.2576.html> <http://www.readcube.com/articles/10.1038/nbt.2576>

[Baccelli I](#), [Stenzinger A](#), [Vogel V](#), [Pfitzner BM](#), [Klein C](#), [Wallwiener M](#), [Scharpf M](#), [Saini M](#), [Holland-Letz T](#), [Sinn HP](#), [Schneeweiss A](#), [Denkert C](#), [Weichert W](#), [Trumpp A](#) (2014) Co-expression of MET and CD47 is a novel prognosticator for survival of luminal breast cancer patients. [Oncotarget](#). 5(18), 8147-60. <http://www.ncbi.nlm.nih.gov/pubmed/25230070>

**CD47** Stanford University (2014) <http://stemcell.stanford.edu/CD47/>

## Telomere

[Canela A, Vera E, Klatt P, Blasco MA](#) (2007) **High-throughput telomere length quantification by FISH and its application to human population studies.** [Proc Natl Acad Sci U S A.](#) 104(13), 5300-5. Epub 2007 Mar 16. <http://www.ncbi.nlm.nih.gov/pubmed/17369361>

Willeit P et al. (2010) **Telomere length and risk of incident cancer and cancer mortality.** *JAMA* 304: 69–75 [[PubMed](#)]

de Jesus B et al. (2011) **The telomerase activator TA-65 elongates short telomeres and increases health span of adult/old mice without increasing cancer incidence.** *Aging Cell* 10: 604–621 [[PMC free article](#)] [[PubMed](#)]

**Life length** (2014) <http://www.lifelength.com/de/technology.html>

Tomasetti C, Vogelstein B (2014) **Variation in cancer risk among tissues can be explained by the number of stem cell divisions.** *Science*, doi:10.1126/science.1260825. <http://www.sciencemag.org/content/347/6217/78.abstract>

## Tetracycline

[Fife RS, Sledge GW Jr](#) (1995) **Effects of doxycycline on in vitro growth, migration, and gelatinase activity of breast carcinoma cells.** [J Lab Clin Med.](#) 125(3), 407-11. <https://www.ncbi.nlm.nih.gov/pubmed/7897308>

[Fife RS, Rougraff BT, Proctor C, Sledge GW Jr](#) (1997) **Inhibition of proliferation and induction of apoptosis by doxycycline in cultured human osteosarcoma cells.** [J Lab Clin Med.](#) 130(5), 530-4. <https://www.ncbi.nlm.nih.gov/pubmed/9390641>

[Fife RS, Sledge GW Jr, Roth BJ, Proctor C](#) (1998) **Effects of doxycycline on human prostate cancer cells in vitro.** [Cancer Lett.](#) 127(1-2), 37-41. <https://www.ncbi.nlm.nih.gov/pubmed/9619856>

[Saikali Z, Singh G](#) (2003) **Doxycycline and other tetracyclines in the treatment of bone metastasis.** [Anticancer Drugs.](#) 14(10), 773-8. <https://www.ncbi.nlm.nih.gov/pubmed/14597870>

[Onoda T, Ono T, Dhar DK, Yamanoi A, Fujii T, Nagasue N](#) (2004) **Doxycycline inhibits cell proliferation and invasive potential: combination therapy with cyclooxygenase-2 inhibitor in human colorectal cancer cells.** [J Lab Clin Med.](#) 143(4), 207-16. <https://www.ncbi.nlm.nih.gov/pubmed/15085079>

[Lokeshwar BL](#) (2011) **Chemically modified non-antimicrobial tetracyclines are multifunctional drugs against advanced cancers.** *Pharmacol Res.* 63(2) 146-50. Epub 2010 Nov 18. <https://www.ncbi.nlm.nih.gov/pubmed/21093590> <http://www.sciencedirect.com/science/article/pii/S1043661810002161>

«**Matrix metalloproteinases (MMPs) make up the majority of ECM degrading enzymes implicated in cancer metastasis. The potent MMP inhibitory activities of tetracyclines, especially their chemically modified analogs, combined with their relatively well tolerated pharmacological profile, led several researchers to investigate their anticancer potential in a variety of cancers, including melanoma, lung, breast and prostate cancers.** «

[Regen F, Heuser I, Herzog I, Hellmann-Regen J](#) (2014) **Striking growth-inhibitory effects of minocycline on human prostate cancer cell lines.** [Urology.](#) 83(2), 509.e1-6. doi: 10.1016/j.urology.2013.10.029. Epub 2013 Dec 19. <https://www.ncbi.nlm.nih.gov/pubmed/24360070>

Lamb R, Ozsvari B, Lisanti CL et al. (2015) **Antibiotics that target mitochondria effectively eradicate cancer stem cells, across multiple tumor types: Treating cancer like an infectious disease.** Oncotarget. 6, 4569-4584. doi: 10.18632/oncotarget.3174 [PDF](#) | [HTML](#) | [Order a Reprint](#)  
<http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&op=view&page=article&path%5B%5D=3174> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4467100/>

➔ **Maryland Lyme Cancer Doxycycline Studies**  
<https://sites.google.com/site/marylandlyme/lyme/cancer-doxycycline-studies>

## Salinomycin

**Salinomycin** ist ein in der Tiermedizin zugelassenes **Polyether**-Antibiotikum gegen **Protozoen**

**Salinomycin** is an approved antibiotic <http://en.wikipedia.org/wiki/Salinomycin> in veterinary medicine against **protozoa**  
[http://www.vetpharm.uzh.ch/reloader.htm?wir/00005300/3104\\_04.htm?wir/00005300/3104\\_00.htm](http://www.vetpharm.uzh.ch/reloader.htm?wir/00005300/3104_04.htm?wir/00005300/3104_00.htm)

Eine Zulassung für die Humanmedizin besteht nicht.  
An authorization for human medicine does not exist.

„Die Einnahme von Salinomycin (Reinsubstanz oder Tierfutter-Zusatzstoff 10%-12%) oral ist HOCHGIFTIG und LEBENSGEFÄHRLICH und darf NIEMALS erfolgen.

Es kommt u. a. zu lebensgefährliche Rhabdomyolysen (Auflösung der Muskulatur)

Salinomycin INTRAVENÖS ist in einer bestimmten Dosis sehr gut verträglich und zeigt gewisse Erfolge hinsichtlich einer Tumorregression.

The use of salinomycin (pure substance or animal feed additive 10% -12%) is orally HIGH TOXIC and HAZARDOUS LIVE and may NEVER be done.

It depends, inter alia, to life-threatening rhabdomyolysis (dissolution of the muscles). Salinomycin INTRAVENOUSLY is very well tolerated in a single dose, showing some success in terms of tumor regression.“ Quelle: <http://www.krebs-kompass.de/showthread.php?t=51961>

„Salinomycin verursacht einen Ausstrom von Kationen, bevorzugt Kalium, aus dem Zytoplasma und aus den Mitochondrien. Die verminderte intrazelluläre Kalium-Konzentration führt zur Entkopplung der oxidativen Phosphorylierung und induziert damit den Zelltod.“ Quelle: <http://flexikon.doccheck.com/de/Salinomycin>

„Salinomycin is a polyether potassium ionophore antibiotic, which promotes cation movement across biological membranes via exchange-diffusion. As a result of this cation exchange, the transmembrane gradients are altered, which leads to changes in cellular function and metabolism. In addition, Salinomycin acts as a chelating agent towards monovalent cations such as sodium and potassium ions. Alternate studies suggest that Salinomycin selectively inhibits cancer stem-like cells.“  
Quelle: <http://www.scbio.de/datasheet-253530-salinomycin.html>

Salinomycin besitzt eine geringe therapeutische Breite. Bei akzidentellen Vergiftungen traten beim Menschen unter anderem Nausea, Photophobie, neurologische Störungen und Rhabdomyolyse auf.

Salinomycin has a narrow therapeutic index. When accidental poisoning in humans, among other things occurred nausea, photophobia, neurological disorders and rhabdomyolysis.“ Quelle: <http://flexikon.doccheck.com/de/Salinomycin>

- [Miyazaki Y, Shibuya M, Sugawara H, Kawaguchi O, Hirsoe C. \(1974\) Salinomycin, a new \*\*polyether antibiotic\*\*. J Antibiot 27\(11\) 814-821](#)
- [Mitani M, Yamanishi T, Miyazaki Y. \(1975\) Salinomycin: a new monovalent cation ionophore. Biochem Biophys Res Commun 66\(4\) 1231-1236.](#)
- [Mitani M, Yamanishi T, Miyazaki Y, Otake N. \(1976\) Salinomycin effects on mitochondrial ion translocation and respiration. Antimicrob Agents Chemother 9\(4\) 655-660.](#)
- [Danforth HD, Ruff MD, Reid WM, Miller RL. \(1977\) Anticoccidial activity of salinomycin in battery raised broiler chickens. Poult Sci 56\(3\) 926-932.](#)
- [Engberg RM, M. S. Hedemann MS, T. D. Leser TD, B. B. Jensen BB \(2000\) Effect of zinc bacitracin and salinomycin on intestinal microflora and performance of broilers. Poultry Science 79\(9\), 1311-1319. <http://ps.oxfordjournals.org/content/79/9/1311.abstract>](#)
- Story P, Doube A (2004) **A case of human poisoning by salinomycin**, an agricultural antibiotic. Journal of the New Zealand Medical Association, 117(1190)  
<http://journal.nzma.org.nz/journal/117-1190/799/>
- [Mahmoudi N, de Julián-Ortiz JV, Ciceron L, Gálvez J, Mazier D, Danis M, Derouin F, García-Domenech R. \(2006\) Identification of new \*\*antimalarial drugs\*\* by linear discriminant analysis and topological virtual screening. J Antimicrob Chemother 57\(3\) 489-497.](#)
- [Degterev A, Yuan J. \(2008\) Expansion and evolution of cell death program. Nat Rev Mol Cell Biol 9\(5\) 378-390.](#)
- Gupta PB et al. (2009) Identification of Selective Inhibitors of Cancer Stem Cells by High-Throughput Screening. Cell, Vol. 138 (4), 645–659 doi:10.1016/j.cell.2009.06.034.  
<http://www.ncbi.nlm.nih.gov/pubmed/19682730>
- (2009) **Mammakarzinom: Erstmals Wirkstoff gegen Tumorstammzellen**. In: Deutsches Ärzteblatt.  
<http://www.aerzteblatt.de/nachrichten/37719/Mammakarzinom-Erstmals-Wirkstoff-gegen-Tumorstammzellen>
- [Fuchs D, Heinold A, Opelz G et al. \(2009\) Salinomycin induces apoptosis and overcomes apoptosis resistance in human cancer cells. Biochem Biophys Res Commun 390\(3\) 743-749.](#)
- (2009) Der Spiegel Online: Tier-Antibiotikum treibt Krebszellen in den Selbstmord.  
<http://www.spiegel.de/wissenschaft/medizin/salinomycin-tier-antibiotikum-treibt-krebszellen-in-den-selbstmord-a-655159.html>
- [Riccioni R, Dupuis ML, Bernabei M et al. \(2010\) The cancer stem cell selective inhibitor salinomycin is a p-glycoprotein inhibitor. Blood Cells Mol Dis 45\(1\) 86-92.](#)
- (2010) Der Spiegel Online: Forscher erproben neuen Wirkstoff gegen Krebs.  
<http://www.spiegel.de/wissenschaft/medizin/antibiotikum-salinomycin-forscher-erproben-neuen-wirkstoff-gegen-krebs-a-687477.html>
- [Fuchs D, Daniel V, Sadeghi M, Opelz G, Naujokat C. \(2010\) Salinomycin overcomes ABC transporter-mediated multidrug and apoptosis resistance in human leukemia stem cell-like KG-1a cells. Biochem Biophys Res Commun 394\(4\) 1098–1104.](#)
- Naujokat C, Fuchs D, Opelz G (2010) **Salinomycin** in cancer: A new mission for an old agent. In: Molecular Medicine Reports 3(4), 555–559 <http://www.ncbi.nlm.nih.gov/pubmed/21472278>
- Dr. Douwes (2010) Salinomycin-Ein Antibiotikum treibt Krebszellen in den Selbstmord. Klinik St.. Georg. <http://www.klinik-st-georg.de/>  
[http://www.klinik-st-georg.de/fileadmin/publikationen/informiert/13\\_KSG\\_DrDouwes\\_Info\\_Salinomycin.pdf](http://www.klinik-st-georg.de/fileadmin/publikationen/informiert/13_KSG_DrDouwes_Info_Salinomycin.pdf)

[Kim JH, Chae M, Kim WK, Kim YJ, Kang HS, Kim HS, Yoon S. \(2011\) Salinomycin sensitizes cancer cells to the effects of doxorubicin and etoposide treatment by increasing DNA damage and reducing p21 protein. Br J Pharmacol 162\(3\) 773-784.](#)

[Wang Y. \(2011\) Effects of salinomycin on cancer stem cell in \*\*human lung adenocarcinoma A549 cells\*\*. Med Chem 7\(2\) 106-111.](#)

[Kim KY, Yu SN, Lee SY, Chun SS, Choi YL, Park YM, Song CS, Chatterjee B, Ahn SC. \(2011\) Salinomycin-induced apoptosis of human \*\*prostate cancer cells\*\* due to accumulated reactive oxygen species and mitochondrial membrane depolarization. Biochem Biophys Res Commun 413\(1\) 80-86.](#)

[Dong TT, Zhou HM, Wang LL, Feng B, Lv B, Zheng MH. \(2011\) Salinomycin selectively targets 'CD133+' cell subpopulations and decreases malignant traits in \*\*colorectal cancer\*\* lines. Ann Surg Oncol 18\(6\) 1797-1804.](#)

[Lu D, Choi MY, Yu J, Castro JE, Kipps TJ, Carson DA. \(2011\) Salinomycin inhibits Wnt signaling and selectively induces apoptosis in \*\*chronic lymphocytic leukemia cells\*\*. Proc Natl Acad Sci USA 108\(32\) 13253-13257.](#)

[Tang QL, Zhao ZQ, Li JC et al. \(2011\) Salinomycin inhibits \*\*osteosarcoma\*\* by targeting its tumor stem cells. Cancer Lett 311\(1\) 113-121.](#)

[Zhang B, Wang X, Cai F, Chen W, Loesch U, Bitzer J, Zhong XY. \(2012\) Effects of salinomycin on \*\*human ovarian cancer\*\* cell line OV2008 are associated with modulating p38 MAPK. Tumour Biol DOI 10.1007/s13277-012-0445-9 \(accessed 7 July 2012\).](#)

[Ketola K, Hilvo M, Hyötyläinen T, Vuoristo A, Ruskeepää AL, Orešič M, Kallioniemi O, Iljin K. \(2012\) Salinomycin inhibits \*\*prostate cancer\*\* growth and migration via induction of oxidative stress. Br J Cancer 106\(1\) 99-106.](#)

Huczynski A (2012) **Salinomycin** – a New Cancer Drug Candidate. In: Chemical Biology & Drug Design 79, 235–238 doi:10.1111/j.1747-0285.2011.01287.x. <http://www.ncbi.nlm.nih.gov/pubmed/21472278>

Naujokat C, Steinhart R (2012) **Salinomycin** as a Drug for Targeting Human Cancer Stem Cells. **Review Article**. Journal of Biomedicine and Biotechnology Volume 2012, Article ID 950658, 17 pages <http://dx.doi.org/10.1155/2012/950658> <http://www.hindawi.com/journals/bmri/2012/950658/ref/>

**Tianliang Li, Ling Su, Ning Zhong, Xuexi Hao, Diansheng Zhong, Sunil Singhal, Xiangguo Liu (2013) Salinomycin induces cell death with autophagy through activation of endoplasmic reticulum stress in human cancer cells.** Autophagy 9, 7, 1057–1068. Landes Bioscience. <https://www.landesbioscience.com/journals/autophagy/2012AUTO0443R2.pdf>

Kopp F, Hermawan A, Oak PS et al. (2014) **Salinomycin treatment reduces metastatic tumor burden by hampering cancer cell migration**. Molecular Cancer 2014, 13:16 doi:10.1186/1476-4598-13-16 <http://www.molecular-cancer.com/content/13/1/16> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3909296/>

**„Our findings clearly show that salinomycin can strongly inhibit cancer cell migration independent of the induction of cell death. We furthermore demonstrate for the first time that salinomycin treatment reduces metastasis formation *in vivo*, strengthening its role as promising anti-cancer therapeutic.“**

Calzolari A, Saulle E, De Angelis ML et al. (2014) Salinomycin Potentiates the Cytotoxic Effects of TRAIL on **Glioblastoma Cell Lines**. Research Article. PLOS one. DOI: 10.1371/journal.pone.0094438 <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0094438>

Nazifi S, Rajaian H, Hajimohammadi A et al. (2014) Effect of oral salinomycin on inflammatory markers in sheep. Online Journal of Veterinary Research©. Volume 18(1), 20-28 <http://users.comcen.com.au/~journals/salinomycinsheepabs2014.htm>

Wang Y (2014) Effects of Salinomycin on Cancer Stem Cell in Human Lung Adenocarcinoma A549 Cells. Medicinal Chemistry. 7(2) 106-111. DOI: 10.2174/157340611794859307 <http://benthamscience.com/journal/abstracts.php?journalID=mc&articleID=87591>

- (2014) **Salinomycin**. Drugs.com <http://www.drugs.com/international/salinomycin.html>
- (2014) **Salinomycin**. Poultry Med. <http://www.poultrymed.com/Poultry/Templates/showpage.asp?DBID=1&LNGID=1&TMID=84&FID=883&PID=17135>
- (2014) **Salinomycin**. Universitätsklinikum Heidelberg <http://www.klinikum.uni-heidelberg.de/Untersuchungen-zum-Wirkmechanismus-und-zur-Wirksamkeit-von-Salinomycin-in-der-Therapie-des-kolorekta.132615.0.html>
- (2014) **Salinomycin**. Cayman Chemical <https://www.caymanchem.com/app/template/Product.vm/catalog/13579>

## Seneca-Valley-Virus

**Ein natürlich vorkommendes onkolytisches Virus, das einzige bekannte apathogene Virus aus der Familie Picornaviridae, ist das Seneca-Valley-Virus.**

**A naturally occurring oncolytic virus, the only known non-pathogenic virus of the family Picornaviridae, is the Seneca Valley virus.**

Gibbs EPJ, Stoddard HL, Yedloutchnig RJ, House JA, Legge M (1983) A vesicular disease of pigs in Florida of unknown etiology. *Florida Vet J* 12: 25-27.

Journal of the National Cancer Institute. "Cancer-Killing Virus Shows Promise as Metastatic Cancer Treatment." *ScienceDaily*. ScienceDaily, 1 November 2007. [www.sciencedaily.com/releases/2007/10/071030160940.htm](http://www.sciencedaily.com/releases/2007/10/071030160940.htm)

National Cancer Institute [Definition of Seneca Valley virus-001](#). [National Cancer Institute](#) Retrieved on 2008-10-09.

Hales LM, Knowles NJ, Reddy PS, Xu L, Hay C, et al. (2008) Complete genome sequence analysis of Seneca Valley virus-001, a novel oncolytic picornavirus. *J Gen Virol* 89, 1265-1275.

Venkataraman S, Reddy SP, Loo J, Idamakanti N, Hallenback PL, et al. (2008) Structure of Seneca Valley Virus-001: An oncolytic picornavirus representing a new genus. *Structure* 16, 1555-1561.

Koppers-Lalic D, Hoeben RC (2011) Non-human viruses developed as therapeutic agent for use in humans. *Reviews in Medical Virology* 21 (4), 227–239. doi:10.1002/rmv.694. PMID 21560181. [edit](#)

Friedman GK, Cassady KA, Beierle EA et al. (2012) Targeting pediatric cancer stem cells with oncolytic virotherapy. *Pediatric Research* 71 (4–2) 500–510. doi:10.1038/pr.2011.58. PMID 22430386. [edit](#)

Singh K, Corner S, Clark SG, Scherba G, Fredrickson R (2012) Seneca Valley Virus and Vesicular Lesions in a Pig with Idiopathic Vesicular Disease. *J Vet Sci Technol* 3:123 doi:10.4172/2157-7579.1000123 <http://www.omicsonline.org/seneca-valley-virus-and-vesicular-lesions-in-a-pig-with-idiopathic-vesicular-disease-2157-7579.1000123.pdf>

### → Targeting Tumors with Viruses (2014)

<http://www.the-scientist.com/?articles.view/articleNo/40114/title/Targeting-Tumors-with-Viruses/>

## Mikrobiom, Bakterien, Bakterientoxine, Chlostridien, Immuntherapeutika, Gc-MAF etc.

Leach DR et al. (1996) Enhancement of antitumor immunity by CTLA-4 blockade. *Science*, 271, 1734-36.

Halpern B, Fray A, Crepin Y et al. (1973) **Action inhibitrice du *Corynebacterium parvum* sur le développement des tumeurs malignes syngéniques et son mécanisme**. *CR Acad Sci [D] (Paris)*. 276, 1911–1915. [PubMed http://www.ncbi.nlm.nih.gov/pubmed/4201539?dopt=Abstract](http://www.ncbi.nlm.nih.gov/pubmed/4201539?dopt=Abstract)

Cann SA et al. (2003) **Dr William Coley and tumour regression: a place in history or in the future**. *Postgrad Med J*, 79, 672-80.

Kantoff PW et al. (2010) Sipuleucel-T immunotherapy for castration-resistant prostate cancer. [N Engl J Med](#). 363, 411-22.

Besser M et al. (2010) Clinical responses in a phase II study using adoptive transfer of short-term cultured tumor infiltration lymphocytes in metastatic melanoma patients. [Clin Cancer Res](#). 16, 2646-55

Lawson JS, Heng B (2010) **Viruses and breast cancer**. *Cancers (Basel)*. 2010; 2(2): 752-72. doi: 10.3390/cancers2020752 <http://www.mdpi.com/2072-6694/2/2/752/htm>

Patyar S, Joshi R, Prasad Byrav DS et al. (2010) **Bacteria in cancer therapy: a novel experimental strategy**. *Journal of Biomedical Science* 17, 21 doi:10.1186/1423-0127-17-21 <http://www.jbiomedsci.com/content/17/1/21>

Porter DL et al. (2011) Chimeric antigen receptor–modified T cells in chronic lymphoid leukemia. [N Engl J Med](#) 365, 725-33

Restifo NP et al. (2012) Adoptive immunotherapy for cancer: harnessing the T cell response. [Nat Rev Immunol](#), 12, 269-81.

Topalian SL et al. (2012) Safety, activity and immune correlates of anti–PD-1 antibody in cancer. [N Engl J Med](#), 366, 2443-54.

Gandhi NM et al. (2013) Bacillus Calmette-Guerin immunotherapy for genitourinary cancer. [BJU Int](#), 112, 288-97.

Roberts NJ et al. (2014) **Intratumoral injection of Clostridium novyi-NT spores induces antitumor responses**. *Science Translational Medicine*, published online 13 August 2014, DOI: 0.1126/scitranslmed.3008982, [Abstract](#). <http://stm.sciencemag.org/content/6/249/249ra111> Johns Hopkins Medicine [news release](#), accessed 17 August 2014.

Vétizou M et al. (2015) Anticancer immunotherapy by CTLA-4 blockade relies on the gut microbiota, *Science*, doi:10.1126/aad1329

Sivan A et al. (2015) Commensal Bifidobacterium promotes antitumor immunity and facilitates anti–PD-L1 efficacy, *Science*, doi:0.1126/science.aac4255.

Spector N (2016) **LYME DISEASE: BIOLOGICAL AND PERSONAL PERSPECTIVES FROM A CANCER RESEARCHER-CLINICAL ONCOLOGIST AND LYME DISEASE SURVIVOR**. Dean Center Lecture Series. <http://spauldingrehab.org/research-and-clinical-trials/lyme-disease/lectures>

Robinson KS, Rochelle Aw (2016) **The Commonalities in Bacterial Effector Inhibition of Apoptosis**. *CellPress*. *Trends in Microbiology*, Month Year, Vol. xx, No. yy <http://dx.doi.org/10.1016/j.tim.2016.04.002> DOI: <http://dx.doi.org/10.1016/j.tim.2016.04.002> [http://www.cell.com/trends/microbiology/abstract/S0966-842X\(16\)30004-X](http://www.cell.com/trends/microbiology/abstract/S0966-842X(16)30004-X)

- ➔ **Probiotika** <http://www.kabilahsystems.de/probiotika.pdf>
- ➔ **Immunstimulation** <http://www.kabilahsystems.de/immunsti.pdf>

### **Nagalase Test**

<http://nagalase-test.de/fragen-und-antworten-nagalase-test/>  
<http://nagalase-test.de/en/questions-and-answers/>

- ➔ **Komplementfaktoren** <http://www.xerlebnishaft.de/complement.pdf>

### **Gc-MAF**

Wang AM, Schindler D, Desnick R (1990) Schindler disease: the molecular lesion in the alpha-N-acetylgalactosaminidase gene that causes an infantile neuroaxonal dystrophy. *J. Clin. Invest.* 86 (5), 1752–6. doi:[10.1172/JCI114901](https://doi.org/10.1172/JCI114901). [PMC 296929](https://pubmed.ncbi.nlm.nih.gov/296929/). [PMID 2243144](https://pubmed.ncbi.nlm.nih.gov/2243144/).

Yamamoto N et al. Deglycosylation of serum vitamin D3-binding protein leads to immunosuppression in Cancer Patients. *Cancer Research* 56, 2827-2831

Yamamoto N et al. (1997) Therapeutic efficacy of vitamin D3 binding protein derived macrophage activating factor for prostate, breast and colon cancers. *Cancer Res. Proc.* 38, 31

Korbelik M, Naraparaju VR, Yamamoto N (1998) The value of serum alpha-N-acetylgalactosaminidase measurement for the assessment of tumor response to radio- and photodynamic therapy. *British Journal of Cancer* 77(6), 1009-1014

Reddi AL et al. (2000) Serum alpha-N-acetylgalactosaminidase is associated with diagnosis/prognosis of patients with squamous cell carcinoma of the uterine cervix. *Cancer Lett.* 158(1), 61-4

Saharuddin BM, Nagasawa H, Uto Y, Hori H (2002) Tumor cell alpha-N-acetylgalactosaminidase activity and its involvement in GcMAF-related macrophage activation [Elsevier, 132\(1\), 1–8, Comparative Biochemistry and Physiology - Part A: Molecular & Integrative Physiology](#)

Yamamoto N, Urade M (2005) Pathogenic significance of alpha-N-acetylgalactosaminidase activity found in the hemagglutinin of influenza virus. *Microbes Infect* 7(4), 674-81

Yamamoto N (2006) Immunotherapy for prostate cancer with GC Protein-derived macrophage-activating factor, GcMAF. *Translational Oncology.* 1(2), 65-72

Yamamoto N, Suyama H, Yamamoto N, Ushijima N. (2008) Immunotherapy of metastatic breast cancer patients with vitamin D-binding protein-derived macrophage activating factor (GcMAF) *Int J Cancer.* 122, 461–7. doi: 10.1002/ijc.23107. [[PubMed](#)] [[Cross Ref](#)]

Yamamoto N, Hirofumi Suyama H, Yamamoto N (2008) Immunotherapy for Prostate Cancer with Gc Protein-Derived Macrophage-Activating Factor, **GcMAF1** - *Translational Oncology* 1 (2), 65–72 [PDF](#) [http://www.biologischeskrebstherapie.net/wp-content/uploads/2013/11/tlo0102\\_0065-Yamamoto-GcMAF-prostrate-cancer.pdf](http://www.biologischeskrebstherapie.net/wp-content/uploads/2013/11/tlo0102_0065-Yamamoto-GcMAF-prostrate-cancer.pdf)

Pacini S, Punzi T, Morucci G, Gulisano M, Ruggiero M. (2012) Effects of **vitamin D-binding protein**-derived macrophage-activating factor on human breast cancer cells. *Anticancer Res.* 32, 45–52. [[PubMed](#)]

[Thyer L](#), [Ward E](#), [Smith R](#) et al. (2013) GC protein-derived macrophage-activating factor decreases  $\alpha$ -N-acetylgalactosaminidase levels in advanced cancer patients. *Oncoimmunology.* Landes Bioscience 2(8), e25769. doi: [10.4161/onci.25769](https://doi.org/10.4161/onci.25769) PMID: PMC3812199 [PDF](#) <http://www.biologischeskrebstherapie.net/wp-content/uploads/2013/11/2013ONCOIMM0155R.pdf>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3812199/>

**„...However, the response to GcMAF was often relatively robust and certain trends stand out.“**

KUCHIIKE D, UTO Y, MUKAI H et al. (2013) **Degalactosylated/Desialylated Human Serum Containing GcMAF Induces Macrophage Phagocytic Activity and In Vivo Antitumor Activity.** *ANTICANCER RESEARCH* 33, 2881-2886 <http://www.biologischeskrebstherapie.net/wp-content/uploads/2013/11/2013-degalactosylated-desialylated-human-serum-containing-gcmf-induces-macrophage-phagocytic-antitumor-activity.pdf> **« We demonstrated that GcMAF-containing human serum can be used as a potential macrophage activator for cancer immunotherapy.“**

INUI T, KUCHIIKE D, KUBO K et al. (2013) **Clinical Experience of Integrative Cancer Immunotherapy with GcMAF.** *ANTICANCER RESEARCH* 33, 2917-2920 [PDF](#) <http://www.biologischeskrebstherapie.net/wp-content/uploads/2013/11/2013-clinical-experience-integrative-cancer-immunotherapy-gcmf.pdf>



„The results of our integrative immunotherapy seem hopeful. We also plan to conduct a comparative clinical study. Immunotherapy has become an attractive new strategy in the treatment of cancer. »

Sample records for serum nagalase activity from WorldWideScience.org

<http://worldwidescience.org/topicpages/s/serum+nagalase+activity.html>

<http://www.gcmf-immuntherapie.com/>

<http://www.biologischerkrebstherapie.net/gcmf/>

<https://en.wikipedia.org/wiki/Gc-MAF>

<http://www.firstimmune.de/>

<http://immunocentre.eu/what-is-gcmf/>

<http://www.firstimmune.de/patient-resources/treatment-strategies/>

**Gc-MAF explained - The start (www.bgli.nl to order Gc-MAF)**

<https://www.youtube.com/watch?v=y7BLpR214t0#t=49>

Noakes D (2015) **How GcMAF eradicates cancers**

<https://www.youtube.com/watch?v=z998HfHbi7w>

~ [http://www.himmunitas.org/pages/english/index\\_en.php?page=home\\_en](http://www.himmunitas.org/pages/english/index_en.php?page=home_en) ~

Noakes D (2015) **GcMAF = The Cure for Cancer.**

[https://www.youtube.com/watch?v=6ljHwt\\_3kuw#t=76.2384475](https://www.youtube.com/watch?v=6ljHwt_3kuw#t=76.2384475)

## MicroRNA

„MicroRNA, abgekürzt miRNA oder miR, sind kurze, hoch konservierte, nichtcodierende RNAs, die eine wichtige Rolle in dem komplexen Netzwerk der Genregulation, insbesondere beim Gen-Silencing spielen. MicroRNAs weisen im Allgemeinen eine Größe von 21 bis 23 Nukleotiden (nt) auf.

MicroRNA, miRNA or miR abbreviated, are short, highly conserved, non-coding RNAs that play an important role in the complex network of gene regulation, particularly in gene silencing. miRNAs generally have a size of 21 to 23 nucleotides (nt).”

Quelle, source: [Wikipedia http://de.wikipedia.org/wiki/MicroRNA](http://de.wikipedia.org/wiki/MicroRNA)

„...Wir sind natürlich nicht sicher, dass es so ablief. Aber das vorgeschlagene Prozedere scheint bei weitem das einfachste und wahrscheinlichste zu sein, um von der RNA-Welt, die nach allgemeiner Übereinstimmung zuerst da war, zur heutigen DNA-RNA-Welt zu gelangen. Wie eine populäre Theorie behauptet, sind in Retroviren bis auf den heutigen Tag Spuren dieser schicksalhaften Ereignisse erhalten.“

"... We are of course not sure it expired so. But the proposed procedure seems by far to be easiest and most likely to attain the RNA world, which, by common consent was first to arrive at the current DNA-RNA world. As a popular theory claims are in retroviruses until today traces of this fateful event. "

Quelle, Source : **De Duve Chr. (1994) Ursprung des Lebens. Präbiotische Evolution und die Entstehung der Zelle. Spektrum Akademischer Verlag. Seite, page 221**

<http://www.amazon.de/Der-Ursprung-Lebens-Pr%C3%A4biotische-Entstehung/dp/3860251872>

Thery C, Zitvogel L, Amigorena S. (2002) Exosomes: composition, biogenesis and function. Nat Rev Immunol 2, 569–579. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |

Bartel DP. (2004) MicroRNAs: genomics, biogenesis, mechanism, and function. Cell 116, 281–297. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |

He L, Hannon GJ. (2004) MicroRNAs: small RNAs with a big role in gene regulation. Nat Rev Genet 5, 522–531. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |

- Vaucheret H, Vazquez F, Crete P, Bartel DP. (2004) The action of ARGONAUTE1 in the miRNA pathway and its regulation by the miRNA pathway are crucial for plant development. *Genes Dev* 18, 1187–1197. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Yu B, Yang Z, Li J, et al. (2005) **Methylation as a crucial step in plant microRNA biogenesis.** *Science* 307, 932–935. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Chen X. (2005) MicroRNA biogenesis and function in plants. *FEBS Lett* 579, 5923–5931. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Du T, Zamore PD. (2005) microPrimer: the biogenesis and function of microRNA. *Development* 132, 4645–4652. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Chen C, Ridzon DA, Broomer AJ, et al. (2005) Real-time quantification of microRNAs by stem-loop RT-PCR. *Nucleic Acids Res* 33, e179. | [Article](#) | [PubMed](#) | [ChemPort](#) |
- Jopling CL, Yi M, Lancaster AM, Lemon SM, Sarnow P. (2005) Modulation of hepatitis C virus RNA abundance by a liver-specific MicroRNA. *Science* 309, 1577–581. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Jiang J, Lee EJ, Gusev Y, Schmittgen TD. (2005) Real-time expression profiling of microRNA precursors in human cancer cell lines. *Nucleic Acids Res* 33, 5394–5403. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Calin GA, Croce CM. (2006) MicroRNA signatures in human cancers. *Nat Rev Cancer* 6, 857–866. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Esquela-Kerscher A, Slack FJ. (2006) Oncomirs – microRNAs with a role in cancer. *Nat Rev Cancer* 6, 259–269. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Vaucheret H, Mallory AC, Bartel DP. (2006) AGO1 homeostasis entails coexpression of MIR168 and AGO1 and preferential stabilization of miR168 by AGO1. *Mol Cell* 22, 129–136. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Smalheiser NR, Torvik VI. (2006) Complications in mammalian microRNA target prediction. *Methods Mol Biol* 342, 115–127. | [PubMed](#) |
- Ohara T, Sakaguchi Y, Suzuki T, Ueda H, Miyauchi K. (2007) The 3' termini of mouse Piwi-interacting RNAs are 2'-O-methylated. *Nat Struct Mol Biol* 14, 349–350. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Valadi H, Ekstrom K, Bossios A, Sjostrand M, Lee JJ, Lotvall JO. (2007) Exosome-mediated transfer of mRNAs and microRNAs is a novel mechanism of genetic exchange between cells. *Nat Cell Biol* 9, 654–659. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Roney JK, Khatibi PA, Westwood JH. (2007) Cross-species translocation of mRNA from host plants into the parasitic plant dodder. *Plant Physiol* 143, 1037–1043. | [Article](#) | [PubMed](#) | [ISI](#) |
- Soifer HS, Rossi JJ, Sætrom P (2007) **MicroRNAs in Disease and Potential Therapeutic Applications.** *Molecular Therapy* 15 12, 2070–2079. doi:10.1038/sj.mt.6300311
- Meng F, Henson R, Wehbe-Janek H, Ghoshal K, Jacob ST, Patel T. (2007) MicroRNA-21 regulates expression of the PTEN tumor suppressor gene in human hepatocellular cancer. *Gastroenterology* 133, 647–658. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Neilson JR, Zheng GX, Burge CB, Sharp PA. (2007) Dynamic regulation of miRNA expression in ordered stages of cellular development. *Genes Dev* 21, 578–589. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Brown BD, Gentner B, Cantore A, et al. (2007) Endogenous microRNA can be broadly exploited to regulate transgene expression according to tissue, lineage and differentiation state. *Nat Biotechnol* 25, 1457–1467. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |

- Chen X, Ba Y, Ma L, et al. (2008) Characterization of microRNAs in serum: a novel class of biomarkers for diagnosis of cancer and other diseases. *Cell Res* 18, 997–1006. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Mitchell PS, Parkin RK, Kroh EM, et al. (2008) Circulating microRNAs as stable blood-based markers for cancer detection. *Proc Natl Acad Sci USA* 105, 10513–10518. | [Article](#) | [PubMed](#) |
- Choy EY et al, (2008) An Epstein-Barr virus-encoded microRNA targets PUMA to promote host cell survival. *J Exp Med*, 205, 2551-60
- Gilad S, Meiri E, Yogeve Y, et al. (2008) Serum microRNAs are promising novel biomarkers. *PLoS One* 3, e3148. | [Article](#) | [PubMed](#) | [ChemPort](#) |
- Skog J, Wurdinger T, van Rijn S, et al. (2008) Glioblastoma microvesicles transport RNA and proteins that promote tumour growth and provide diagnostic biomarkers. *Nat Cell Biol* 10, 1470–1476. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Grimson A, Srivastava M, Fahey B, et al. (2008) Early origins and evolution of microRNAs and Piwi-interacting RNAs in animals. *Nature* 455, 1193–1197. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Tay Y, Zhang J, Thomson AM, Lim B, Rigoutsos I. (2008) MicroRNAs to Nanog, Oct4 and Sox2 coding regions modulate embryonic stem cell differentiation. *Nature* 455, 1124–1128. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Ng EK, Chong WW, Jin H, et al. (2009) Differential expression of microRNAs in plasma of patients with colorectal cancer: a potential marker for colorectal cancer screening. *Gut* 58, 1375–1381. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Chen X, Li Q, Wang J, et al. (2009) Identification and characterization of novel amphioxus microRNAs by Solexa sequencing. *Genome Biol* 10, R78. | [Article](#) | [PubMed](#) | [ChemPort](#) |
- Bissels U, Wild S, Tomiuk S, et al. (2009) Absolute quantification of microRNAs by using a universal reference. *RNA* 15, 2375–2384. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- [Hutchison ER](#), [Okun E](#), [Mattson MP](#). (2009) **The therapeutic potential of microRNAs in nervous system damage, degeneration, and repair.** *Neuromolecular Med.* 11(3), 153-61. doi: 10.1007/s12017-009-8086-x.
- Lima WF, Wu H, Nichols JG, Sun H, Murray HM, Crooke ST. (2009) Binding and cleavage specificities of human Argonaute2. *J Biol Chem* 284, 26017–26028. | [Article](#) | [PubMed](#) | [ISI](#) |
- Resnick KE, Alder H, Hagan JP, Richardson DL, Croce CM, Cohn DE. (2009) The detection of differentially expressed microRNAs from the serum of ovarian cancer patients using a novel real-time PCR platform. *Gynecol Oncol* 112, 55–9. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Brown BD, Naldini L. (2009) Exploiting and antagonizing microRNA regulation for therapeutic and experimental applications. *Nat Rev Genet* 10, 578–585. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Gazzani S, Li M, Maistri S, et al. (2009) **Evolution of MIR168 paralogs in Brassicaceae.** *BMC Evol Biol* 9, 62. | [Article](#) | [PubMed](#) |
- Gibbins DJ, Ciaudo C, Erhardt M, Voinnet O. (2009) Multivesicular bodies associate with components of miRNA effector complexes and modulate miRNA activity. *Nat Cell Biol* 11, 1143–1149. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Mallory AC, Vaucheret H. (2009) ARGONAUTE 1 homeostasis invokes the coordinate action of the microRNA and siRNA pathways. *EMBO Rep* 10, 521–526. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Wang K, Zhang S, Marzolf B, et al. (2009) Circulating microRNAs, potential biomarkers for drug-induced liver injury. *Proc Natl Acad Sci USA* 106, 4402–4407. | [Article](#) | [PubMed](#) |

- Cocucci E, Racchetti G, Meldolesi J. (2009) Shedding microvesicles: artefacts no more. *Trends Cell Biol* 19, 43–51. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Li LM, Hu ZB, Zhou ZX, et al. (2010) Serum microRNA profiles serve as novel biomarkers for HBV infection and diagnosis of HBV-positive hepatocarcinoma. *Cancer Res* 70, 9798–9807. | [Article](#) | [PubMed](#) | [ISI](#) |
- Shimizu S, Takehara T, Hikita H, et al. (2010) The let-7 family of microRNAs inhibits Bcl-xL expression and potentiates sorafenib-induced apoptosis in human hepatocellular carcinoma. *J Hepatol* 52, 698–704. | [Article](#) | [PubMed](#) | [ISI](#) |
- Tomimaru Y, Eguchi H, Nagano H, et al. (2010) MicroRNA-21 induces resistance to the anti-tumour effect of interferon-alpha/5-fluorouracil in hepatocellular carcinoma cells. *Br J Cancer* 103, 1617–1626. | [Article](#) | [PubMed](#) | [ISI](#) |
- [Jackson A, Linsley PS.](#) (2010) **The therapeutic potential of microRNA modulation.** *Discov Med.* 9(47), 311-8. <http://www.ncbi.nlm.nih.gov/pubmed/20423675>
- Zhang J, Yang Y, Yang T, et al. (2010) microRNA-22, downregulated in hepatocellular carcinoma and correlated with prognosis, suppresses cell proliferation and tumourigenicity. *Br J Cancer* 103, 1215–1220. | [Article](#) | [PubMed](#) | [ISI](#) |
- Zhang C, Wang C, Chen X, et al. (2010) Expression profile of microRNAs in serum: a fingerprint for esophageal squamous cell carcinoma. *Clin Chem* 56, 1871–1879. | [Article](#) | [PubMed](#) | [ISI](#) |
- Zhang Y, Liu D, Chen X, et al. (2010) Secreted monocytic miR-150 enhances targeted endothelial cell migration. *Mol Cell* 3, 133–144. | [Article](#) | [PubMed](#) | [ISI](#) | [ChemPort](#) |
- Collino F, Deregibus MC, Bruno S, et al. (2010) Microvesicles derived from adult human bone marrow and tissue specific mesenchymal stem cells shuttle selected pattern of miRNAs. *PLoS One* 5, e 11803
- Meckes DG Jr, Shair KH, Marquitz AR, Kung CP, Edwards RH, Raab-Traub N. (2010) Human tumor virus utilizes exosomes for intercellular communication. *Proc Natl Acad Sci USA* 107, 20370–20375. | [Article](#) | [PubMed](#) |
- Ogawa R, Tanaka C, Sato M, et al. (2010) Adipocyte-derived microvesicles contain RNA that is transported into macrophages and might be secreted into blood circulation. *Biochem Biophys Res Commun* 398, 723–729. | [Article](#) | [PubMed](#) | [ISI](#) |
- Pegtel DM, Cosmopoulos K, Thorley-Lawson DA, et al. (2010) Functional delivery of viral miRNAs via exosomes. *Proc Natl Acad Sci USA* 107, 6328–6333. | [Article](#) | [PubMed](#) |
- Huang S, Wu S, Ding J, et al. (2010) MicroRNA-181a modulates gene expression of zinc finger family members by directly targeting their coding regions. *Nucleic Acids Res* 38, 7211–18. | [Article](#) | [PubMed](#) |
- Qin W, Shi Y, Zhao B, et al. (2010) miR-24 regulates apoptosis by targeting the open reading frame (ORF) region of FAF1 in cancer cells. *PLoS One* 5, e9429. | [Article](#) | [PubMed](#) | [ChemPort](#) |
- Jia X, Mendu V, Tang G. (2010) An array platform for identification of stress-responsive microRNAs in plants. *Methods Mol Biol* 639, 253–269. | [PubMed](#) |
- Hartig JV, Forstemann K. (2011) Loqs-PD and R2D2 define independent pathways for RISC generation in *Drosophila*. *Nucleic Acids Res* 39, 3836–3851. | [Article](#) | [PubMed](#) | [ISI](#) |
- Liu C et al (2011) The microRNA miR-34a inhibits prostate cancer stem cells and metastasis by directly repressing CD44, *Nat Med* 17, 211-215 <http://www.ncbi.nlm.nih.gov/pubmed/21240262>
- Zhang L, Dongxia Hou D, Chen X et al. (2012) Exogenous plant MIR168a specifically targets mammalian LDLRAP1: evidence of cross-kingdom regulation **by microRNA**. *Cell Research* 22, 107–126. doi:10.1038/cr.2011.158; published online 20 September 2011 <http://www.nature.com/cr/journal/v22/n1/full/cr2011158a.html>

Kincaid RP, Sullivan CS (2012) Virus-encoded microRNAs: An overview and a look to the future. [PLOS Pathog](#), 8, e1003018.

Ebert MS, Sharp PA (2012) **Roles for microRNAs in conferring robustness to biological processes.** [Cell](#), 149, 515-24

Bader AG, Lammers P. (2012) **The Therapeutic Potential of microRNAs.** Innovations in Pharmaceutical Technology. Mirna Therapeutics, Inc.  
<http://www.mirnarx.com/pdfs/The%20Therapeutic%20Potential%20of%20microRNAs.pdf>

[Thorsen SB](#), [Obad S](#), [Jensen NF](#), [Stenvang J](#), [Kauppinen S](#). (2012) **The therapeutic potential of microRNAs in cancer.** [Cancer J](#). 18(3), 275-84. doi: 10.1097/PPO.0b013e318258b5d6.  
<http://www.ncbi.nlm.nih.gov/pubmed/22647365>

„Abstract MicroRNAs (miRNAs) have been uncovered as important posttranscriptional regulators of nearly every biological process in the cell. Furthermore, mounting evidence implies that miRNAs play key roles in the pathogenesis of cancer and that many miRNAs can function either as oncogenes or tumor suppressors. Thus, miRNAs have rapidly emerged as promising targets for the development of novel anticancer therapeutics. The development of miRNA-based cancer therapeutics relies on restoring the activity of tumor suppressor miRNAs using double-stranded miRNA mimics or inhibition of oncogenic miRNAs using single-stranded antisense oligonucleotides, termed antimiRs. In the present review, we focus on recent advancements in the discovery and development of miRNA-based cancer therapeutics using these 2 approaches. In addition, we summarize selected studies, in which modulation of miRNA activity in preclinical cancer models in vivo has demonstrated promising therapeutic potential.“

Cullen BR et al. (2013) Is **RNA interference** a physiologically relevant innate antiviral immune response in mammals? [Cell Host Microbe](#), 14, 374-78.

[Xu WD](#), [Pan H-F](#), [Li J-H](#), [Ye D-Q](#) (2013) **MicroRNA-21 with therapeutic potential in autoimmune diseases.** Expert Opinion on Therapeutic Targets. 17(6), 659-665  
(doi:10.1517/14728222.2013.773311) <http://informahealthcare.com/doi/abs/10.1517/14728222.2013.773311>

Langlois RA et al (2013) MicroRNA-based strategy to mitigate the risk of gain-of-function **influenza** studies. [Nat Biotechnol](#), 31, 844-47

Gunasekharan V, Laimins LA (2013) **Human papillomaviruses** modulate microRNA 145 expression to directly control genome amplification. [J Virol](#), 87, 6037-43

O'Connor CM et al. (2014) Host microRNA regulation of **human cytomegalovirus** immediate early protein translation promotes viral latency. [J Virol](#), 88, 5524-32.

Pan D et al (2014) A neuron-specific host microRNA targets **herpes simplex virus-1 ICP0** expression and promotes latency. [Cell Host Microbe](#), 15, 446-56.

Kohl JV (2014) **Nutrient-dependent pheromone-controlled ecological adaptations: from atoms to ecosystems.**  
[http://figshare.com/articles/Nutrient\\_dependent\\_pheromone\\_controlled\\_ecological\\_adaptations\\_from\\_atoms\\_to\\_ecosystems/994281](http://figshare.com/articles/Nutrient_dependent_pheromone_controlled_ecological_adaptations_from_atoms_to_ecosystems/994281)

Cheng ChrJ, Bahal R, Babar IA et al. (2014) **MicroRNA silencing for cancer therapy targeted to the tumour microenvironment.** Nature doi:10.1038/nature13905  
<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature13905.html>

Cox JE, Sullivan CS (2014) **Balance and stealth:** The role of noncoding RNAs in the regulation of virus gene expression. [Annu Rev Virol](#), 1, 89-109.

Google Search (2014)  
<https://www.google.de/search?q=The+Therapeutic+Potential+of+microRNAs&hl=de&btnG=Google+Search#hl=de&q=The+Therapeutic+Potential+of+microRNAs&start=10>

→ **RNA-Welt** <http://www.xerlebnishaft.de/rna.pdf>

- Gen transfer <http://www.erlebnishaft.de/gentransfer.pdf>
- Gen-Dynamik [http://www.xerlebnishaft.de/gen\\_dynamik.pdf](http://www.xerlebnishaft.de/gen_dynamik.pdf)
- Methylierung <http://erlebnishaft.de/methylierung.pdf>
  
- Lebensstrukturenvergleich <http://www.xerlebnishaft.de/lebensstrukturenvergleich.pdf>
  
- Probiotika <http://www.kabilahsystems.de/probiotika.pdf>
- Pfeffer, Chilli, Gelbwurz (Curcuma, Tumeric), Isoflavinoide  
<http://www.kabilahsystems.de/pfefferchilligelbwurz.pdf>
- Kräutertherapie allgemein <http://www.xerlebnishaft.de/kraeutertherapie.pdf>

## Amanitin und Antamanid

**Alpha-Amanitin (Amatoxine aus Amanita phalloides (Grüner Knollenblätterpilz) inhibiert vor allem die eukaryotische RNA-Polymerase II und III, nicht aber I. Die prokaryotischen RNA-Polymerasen werden nicht inhibiert. Die Aktivität der eukaryotischen RNA-Polymerasen soll in Tumorzellen nahezu ungebremst sein.**

**Alpha-amanitin (amatoxins) Amanita phalloides from (Green Amanita mushroom) inhibits mainly the eukaryotic RNA polymerase II and III, but not I. The prokaryotic RNA polymerases are not inhibited. In tumor cells, the activity of the eukaryotic RNA polymerases possibly are continuing almost without relent.**

Wieland T (1967) The toxic peptides of Amanita phalloides. In: Fortschr Chem Org Naturst. 25, 214–250. [PMID 4879549](#).

Wieland T (1968) Poisonous principles of mushrooms of the genus Amanita. Four-carbon amines acting on the central nervous system and cell-destroying cyclic peptides are produced. In: Science. 159(818), 946–952. [PMID 4865716](#).

Seeger R (1983) Zeitungspapiertest für Amanitine – falsch positive Ergebnisse. Zeitschrift für Mykologie, Band 50(2), 353-359 <http://www.dgfm-ev.de/sites/default/files/ZM502353Seeger.pdf>

Vetter J (1998) Toxins of Amanita phalloides. In: Toxicon : official journal of the International Society on Toxinology. 36(1), 13–24, [ISSN 0041-0101](#). [PMID 9604278](#)

Lexikon der Biochemie (1999) **Antamanid**. Spektrum Akademischer Verlag, Heidelberg.  
<http://www.spektrum.de/lexikon/biochemie/antamanid/420>

Scholer A, Regeniter A (2000) Intoxikationen mit Amanitinen (Knollenblätterpilz) Kantonsspital-Zentrallabor, Universität Basel. [https://www.gtfc.org/cms/images/stories/media/tk/tk67\\_3/scholer.pdf](https://www.gtfc.org/cms/images/stories/media/tk/tk67_3/scholer.pdf)

Lee KB, Wang D, Lippard SJ, Sharp PA (2002) Transcription-coupled and DNA damage-dependent ubiquitination of RNA polymerase II in vitro. In: Proceedings of the National Academy of Sciences of the United States of America. 99(7), 4239–4244, [ISSN 0027-8424](#). [doi:10.1073/pnas.072068399](#). [PMID 11904382](#). [PMC 123632](#) (freier Volltext).

Riede I (2010): Erfahrungen mit der Amanita-Therapie. Schweiz Z Ganzheitsmed 22:326-328. (DOI: 10.1159/000322067) ([pdf](#))

Riede I (2010): Tumor Therapy with Amanita phalloides (Death Cap): Stabilization of B-Cell Chronic Lymphatic Leukemia. J. Alt. Compl. Med. 16(10), 1129–1132

(2010) **Amatoxin-armed therapeutic cell surface binding components designed for tumour therapy**. Patent WO 2010115629 A3  
<https://www.google.com/patents/WO2010115629A3?cl=en&dq=amatoxin+patent&hl=de&sa=X&ei=RoUaVPzbKsPGOZrTgegF&ved=0CCAQ6AEwAA>

(2011) Anwendung von Amatoxin-Konjugaten und Phallotoxin-Konjugaten mit Makromolekülen zur Krebstherapie und Therapie von Entzündungen. Patent EP 1859811 B1  
<https://www.google.com/patents/EP1859811B1?cl=de&dq=amatoxin+patent&hl=de&sa=X&ei=RoUaVPzbKsPGOZrTgegF&ved=0CDkQ6AEwAw>

Simons SM, Júnior PL, Faria F, Batista IF, Barros-Battesti DM, Labruna MB, Chudzinski-Tavassi AM. (2011) **The action of Amblyomma cajennense tick saliva in compounds of the hemostatic system and cytotoxicity in tumor cell lines.** *Biomed Pharmacother.* 65(6), 443-50. doi: 10.1016/j.biopha.2011.04.030. <http://www.ncbi.nlm.nih.gov/pubmed/21723081>

Hofmann H, Hofmann F (2012) Jimdo **Amatoxine** <http://frankies.jimdo.com/gifte-wirkstoffe/amatoxine/>

Moldenhauer G, Salnikov AV, Lüttgau S et al. (2012) **Therapeutic Potential of Amanitin-Conjugated Anti-Epithelial Cell Adhesion Molecule Monoclonal Antibody Against Pancreatic Carcinoma.** *JNCI Journal of the National Cancer Institute* DOI: 10.1093/jnci/djs140  
<http://jnci.oxfordjournals.org/content/early/2012/03/26/jnci.djs140>  
[https://www.klinikum.uni-heidelberg.de/fileadmin/MoiOnkoChir/Presse/Fliegenpilz\\_red\\_.pdf](https://www.klinikum.uni-heidelberg.de/fileadmin/MoiOnkoChir/Presse/Fliegenpilz_red_.pdf)  
**„Conclusion This preclinical study suggests that anti-EpCAM antibody conjugates with  $\alpha$ -amanitin have the potential to be highly effective therapeutic agents for pancreatic carcinomas and various EpCAM-expressing malignancies.“**

Moshnikova A, Moshnikova V, Andreev OA, Reshetnyak YK (2013) **Antiproliferative effekt of pHLIP-Amanitin.** *Biochem* 52, 1171–8. <http://www.ncbi.nlm.nih.gov/pubmed/23360641>

(2013) **Amatoxin-Antikörper-Konjugate zur Behandlung von Krebs** Patent EP 2416805 B1  
<https://www.google.com/patents/EP2416805B1?cl=de&dq=amanitin+patent&hl=de&sa=X&ei=-IlaVNXfHcTYOqCggdAJ&ved=0CCqQ6AEwAQ>

Riede I (2013) **Switch the Tumor Off: From Genes to Amanita Therapy.** *American Journal of Biomedical Research* 1(4), 93-107 doi: 10.12691/ajbr-1-4-5. <http://www.sciepub.com/ajbr/content/1/4>

(2014) **Amatoxin derivatives and cell-permeable conjugates thereof as inhibitors of rna polymerase.** Patent WO 2014043403 A4  
<https://www.google.com/patents/WO2014043403A4?cl=en&dq=amatoxin+patent&hl=de&sa=X&ei=RoUaVPzbKsPGOZrTgegF&ved=0CDAQ6AEwAg>

Riede I (2015) **Borrelia Infection Appears as chronic Lymphatic Leukemia: Therapy with Amanita phalloides and Terebintia laricina.** *British Journal of Medicine & Medical Research.* 7(7), 630-637 <http://www.sciencedomain.org/abstract.php?iid=947&id=12&aid=8421>  
<http://www.sciencedomain.org/review-history.php?iid=947&id=12&aid=8421>

Bernd S (2015) Pflanzenstoffe für die Tumorbehandlung. **Amanitin als Krebstherapeutikum.** *Deutsches Ärzteblatt* 112(17), A782 <http://www.aerzteblatt.de/pdf/112/17/a782.pdf>

Riede . (2017) **New Therapy Strategy for Prostate Cancer: Amanita phalloides Treatment Stabilizes Best Without Pre-treatments (Observational Study Pre-protocol).** *British Journal of Medicine & Medical Research* 21(3): 1-7 Article no.BJMMR.32673 ISSN: 2231-0614, NLM ID: 101570965

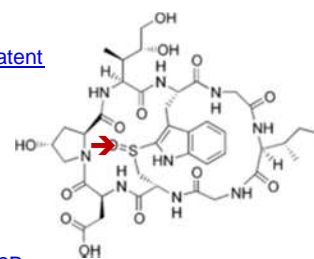
**„ Amanita therapy can reduce tumor growth best in patients without previous treatments, and was most effective in patients without tumor progression. Therefore Amanita should be used first as a tumor specific therapy. Anti androgen treatment, chemotherapy, radiation or prostatectomy can be applied at later stages ».**

#### Patente zu Amatoxin

[https://www.google.com/search?tbm=pts&hl=de&q=amanitin+patent&gws\\_rd=ssl#hl=de&tbm=pts&q=amatoxin+patent](https://www.google.com/search?tbm=pts&hl=de&q=amanitin+patent&gws_rd=ssl#hl=de&tbm=pts&q=amatoxin+patent)

Wikipedia (2014) Amatoxine <http://de.wikipedia.org/wiki/Amatoxine>

- ➔ **Thioester-Welt und Komplement** <http://www.xerlebnishaft.de/complement.pdf>
- ➔ **CHRISTIAN DE DUVE Thioesters: Compounds between acids and thios**  
<http://www.webofstories.com/play/christian.de.duve/104;jsessionid=DA1D28F87C3477BF9B811A9E2A7B468B>
- ➔ **Biogene Amine und Peptide** <http://www.kabilahsystems.de/biogeneamineundpeptide.pdf>
- ➔ **P53** <http://www.erlebnishaft.de/p53.pdf>



- Komplement / Nagalase <http://www.xerlebnishaft.de/complement.pdf>
- CD57 <http://www.erlebnishaft.de/cd57.pdf> <http://www.erlebnishaft.de/kommentcd57.pdf>
- Fettsäuren <http://www.kabilahsystems.de/ungesaettfetts.pdf>
- Polyphenole (z.B. Resveratrol) <http://www.kabilahsystems.de/polyphenole.pdf>
- Mistel Therapy <http://www.xerlebnishaft.de/misteltherapie.pdf>

## Heat Shock Proteine und Inflammation. Heat shock proteins and inflammation

Zügel U, Sponaas AM, Neckermann J et al. (2001) **gp96-peptide vaccination of mice against intracellular bacteria.** *Infect Immun.* 69(6), 4164-7.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC98486/>  
<http://www.ncbi.nlm.nih.gov/pubmed/11349093>

van Eden W. (2003) **Heat Shock Proteins and Inflammation.** Birkhäuser ISBN-10:3-7643-6932-9  
[https://books.google.de/books?id=cICyvP7XvZUC&pg=PA40&lpg=PA40&dq=gp96-peptide+vaccination+of+mice+against+intracellular+bacteria&source=bl&ots=UL54lOfMCo&sig=m5-05As2bTiPqKb-e18tiz81skc&hl=de&sa=X&ei=5\\_nZVL6aOJTzauyFggqB&ved=0CG0Q6AEwCQ#v=onepage&q=gp96-peptide%20vaccination%20of%20mice%20against%20intracellular%20bacteria&f=false](https://books.google.de/books?id=cICyvP7XvZUC&pg=PA40&lpg=PA40&dq=gp96-peptide+vaccination+of+mice+against+intracellular+bacteria&source=bl&ots=UL54lOfMCo&sig=m5-05As2bTiPqKb-e18tiz81skc&hl=de&sa=X&ei=5_nZVL6aOJTzauyFggqB&ved=0CG0Q6AEwCQ#v=onepage&q=gp96-peptide%20vaccination%20of%20mice%20against%20intracellular%20bacteria&f=false)

von Koh (2015) **Aspirin hemmt krebsfördernden Stoffwechselweg.**  
 Deutsches Krebsforschungszentrum - Stiftung des öffentlichen Rechts. Nr. 53c  
<https://www.dkfz.de/de/presse/pressemitteilungen/2015/dkfz-pm-15-53c-Aspirin-hemmt-krebsfoerdernden-Stoffwechselweg.php>

National Cancer Institute (2015) **No Easy Answers about Whether Aspirin Lowers Cancer Risk,**  
<http://www.cancer.gov>

Elwood PC et al. (2016) **Aspirin in the treatment of cancer: reductions in metastatic spread and in mortality: a systematic review and meta-analyses of published studies.** PLOS ONE,  
<http://dx.plos.org/10.1371/journal.pone.0152402> <https://www.ncbi.nlm.nih.gov/pubmed/27096951>

Bibbins-Domingo K (2016) **Aspirin Use for the Primary Prevention of Cardiovascular Disease and Colorectal Cancer: U.S. Preventive Services Task Force Recommendation Statement:** *Ann Intern Med.* doi:10.7326/M16-0577 <https://www.ncbi.nlm.nih.gov/pubmed/27064677>  
**“The current evidence is insufficient to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of CVD and CRC in adults younger than 50 years. (I statement) The current evidence is insufficient to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of CVD and CRC in adults aged 70 years or older. (I statement)**

Aran D et al. (2016) **Widespread parainflammation in human cancer.** *Genome Biol,* 17, 145.  
<https://www.ncbi.nlm.nih.gov/pubmed/27386949>  
**« We conclude that parainflammation, a low-grade form of inflammation, is widely prevalent in human cancer, particularly in cancer types commonly harboring p53 mutations. Our data suggest that parainflammation may be a driver for p53 mutagenesis and a guide for cancer prevention by NSAID treatment. »**

## Monoklonale Antikörper z.B. gegen EGF-Rezeptor, Anti Epidermal Growth Factor Receptor, Anti EGFR)

Weaver VM et al. (1997) **Reversion of the malignant phenotype of human breast cells in three-dimensional culture and in vivo by integrin blocking antibodies.** *J Cell Biol,* 137, 231-45.

Hodi FS et al. (2010) Improved survival with ipilimumab in patients with metastatic melanoma. *N Engl J Med,* 363, 711-23, 2010.

Chustecka Z (2013) Some melanoma patients living for up to 10 years after ipilimumab. *Medscape Medical News.*

Wolchok JD et al. (2013) Nivolumab plus ipilimumab in advanced melanoma. *N Engl J Med,* 369, 122-33.



Qi WX et al. (2014) **Incidence and risk of severe infections associated with anti-epidermal growth factor receptor monoclonal antibodies in cancer patients: a systematic review and meta-analysis.** BMC Medicine 12, 203. <http://www.biomedcentral.com/1741-7015/12/203>  
«**Anti-EGFR MoAbs treatment significantly increases the risk of developing severe infectious events in cancer patients. The risk may vary with tumor types. Clinicians should be aware of the risks of severe infections with the administration of these drugs in cancer patients.**»

Funakoshi T et al. (2014) **Infectious complications in cancer patients treated with anti-EGFR monoclonal antibodies cetuximab and panitumumab: A systematic review and meta-analysis.** Cancer Treatment Reviews 40, 1221–9. <http://www.ncbi.nlm.nih.gov/pubmed/25288497>  
«**The use of anti-EGFR mAbs is associated with a significantly higher risk of high-grade infection and febrile neutropenia.**»

**Chimeric antigen receptor T-Cells** [http://en.wikipedia.org/wiki/Chimeric\\_antigen\\_receptor](http://en.wikipedia.org/wiki/Chimeric_antigen_receptor)  
Etc.

[Cheadle EJ](#), [Sheard V](#), [Hombach AA](#), [Chmielewski M](#) et al. (2012) **Chimeric antigen receptors for T-cell based therapy.** *Methods Mol Biol.* 907:645-66. doi: 10.1007/978-1-61779-974-7\_36.  
<http://www.ncbi.nlm.nih.gov/pubmed/22907378>

Salanti A, Clausen TM, Agerbaek M et al. (2015) **Targeting Human Cancer by a Glycosaminoglycan Binding Malaria Protein.** DOI: <http://dx.doi.org/10.1016/j.ccell.2015.09.003>  
<http://www.cell.com/cancer-cell/abstract/S1535-6108%2815%2900334-7>  
**Malaria vaccine provides hope for a general cure for cancer.**  
<http://healthsciences.ku.dk/news/news2015/malaria-vaccine-provides-hope-for-a-general-cure-for-cancer/>

- ➔ **Quorum sensing** <http://www.xerlebnishaft.de/quorum.pdf>
- ➔ **Antizytokine / Antichemokine** <http://www.kabilahsystems.de/antizyt-chem.pdf>

## Elektromagnetismus, electromagnetism

Fröhlich H (1978) **Coherent electric vibrations in biological systems and the cancer problem.** IEEE Transactions on Microwave Theory and Techniques MTT 26, 613-617.  
[http://www.researchgate.net/publication/3127154\\_Coherent\\_Electric\\_Vibrations\\_in\\_Biological\\_Systems\\_and\\_the\\_Cancer\\_Problem](http://www.researchgate.net/publication/3127154_Coherent_Electric_Vibrations_in_Biological_Systems_and_the_Cancer_Problem)

Salari V, Tuszynski J, Rahnama M, Bernroider G (2010) **Plausibility of Quantum Coherent States in Biological Systems.** <http://arxiv.org/ftp/arxiv/papers/1012/1012.3879.pdf>

Pokorny J, Vedruccio C, Cifra M, Kucera O (2011) **Cancer physics: Diagnostics based on damped cellular elasto-electrical vibrations in microtubules,** European Biophysics Journal. 40(6), 747-759  
<http://link.springer.com/article/10.1007%2Fs00249-011-0688-1>

**Bill Doyle B** (2011) **Treating cancer with electric fields. TTF, tumor treating fields**  
[https://www.ted.com/talks/bill\\_doyle\\_treating\\_cancer\\_with\\_electric\\_fields](https://www.ted.com/talks/bill_doyle_treating_cancer_with_electric_fields)

Zimmerman JW, Pennison MJ, Brezovich I et al. (2012) **Cancer cell proliferation is inhibited by specific modulation frequencies,** Br J Cancer. British Journal of Cancer 106, 307–313.  
doi:10.1038/bjc.2011.523 <http://www.nature.com/bjc/journal/v106/n2/full/bjc2011523a.html>  
<http://www.ncbi.nlm.nih.gov/pubmed/22134506>

Srobar F (2012) **Fröhlich Systems in Cellular Physiology,** Prague Medical Report 113(2), 95–104.  
<http://www.ncbi.nlm.nih.gov/pubmed/22691281>

Baldi I, Bouvier G, Coureau G, et al. (2014) **Mobile phone use and brain tumours in the CERENAT case-control study.** British Occupational and Environmental Medicine.  
<http://oem.bmj.com/content/early/2014/05/09/oemed-2013-101754>  
«**These additional data support previous findings concerning a possible association between heavy mobile phone use and brain tumours.**»

→ **Biofilme und Elektromagnetismus** <http://www.xerlebnishaft.de/quorum.pdf>

Die **Bioresonanztherapie** gehört nicht zum Methodenspektrum der wissenschaftlichen Medizin.

**Bioresonance therapy** is not part of the spectrum of methods of science medicine.

<http://de.wikipedia.org/wiki/Bioresonanztherapie> [http://en.wikipedia.org/wiki/Bioresonance\\_therapy](http://en.wikipedia.org/wiki/Bioresonance_therapy)

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